# Clinical Lectures
ON THE
# COMMON FORMS OF PARALYSIS FROM BRAIN DISEASE.

*Delivered at University College Hospital,*

BY H. CHARLTON BASTIAN, M.D., F.R.S.,
PROFESSOR OF PATHOLOGICAL ANATOMY IN UNIVERSITY COLLEGE; PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL; AND SENIOR ASSISTANT-PHYSICIAN TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

## LECTURE II.

GENTLEMEN,—The last lecture was altogether devoted to the consideration of the causes of hemiplegia, and I entered into some details concerning those ruptures, occlusions, and spasms of vessels which are the immediately determining conditions in the common forms of paralysis from brain disease. There is one other part of the subject, however, to which I must briefly allude before discussing the question of causation. How far, it may be asked, is hemiplegia an hereditary disease?—that is, how far may a tendency to its occurrence be transmitted from parent to offspring? This question is not so simple as it appears, and it is one concerning which we are still in need of further information. In the first place, it should be remarked that if we put on one side the comparatively rare cases belonging to our third category—those in which spasm of vessels and functional disturbances are the efficient causes,—the commoner forms of hemiplegia due to hæmorrhage and softening, are much more likely to be heritable through transmitted defects of the vascular system than through transmitted defects of the nervous system proper. Now, there are many facts known which do seem to show that a tendency to hemiplegia is capable of being transmitted from parent to offspring, although the proportion of these cases is very small when compared with others in which no such inheritance is traceable. Thus, inheritance may, I believe, come into operation in the production of hemiplegia in two ways. In the first place, in some of the many cases in which peculiarities of the nervous system itself are transmitted we may find an inherent instability of nerve-tissue favouring the occurrence of hemiplegia, through spasm of vessels and functional changes; whilst in other cases a defective condition of the vascular system is inherited of such a nature as to favour early degeneration and rupture of the cerebral vessels, producing hæmorrhage and hemiplegia. But, as I have already said, in a very large proportion of the cases of cerebral hæmorrhage you will not be able to trace the influence of heredity; and still less will you be able to trace it in those persons in whom hemiplegia is accompanied by softening of brain-tissue. A little reflection will make this plain to you. Taking the common causes of softening to be embolism and thrombosis, it becomes pretty obvious that embolism is a so-called pathological accident; and, for all practical purposes, we may regard thrombosis of a cerebral vessel in much the same light, if we look to the complex influences which frequently determine it. Enough has been said, I hope, to show you the impropriety of citing in a routine manner the occurrence of hemiplegia as an evidence of inherited defect on the side of the nervous system, seeing that this condition can be very rarely traced to inheritance at all, and still more rarely to any heritable defect in the nervous system itself.

But although we may find that the influence of heredity is slight in the determination of hemiplegia, there is one condition of the body especially in which this set of symptoms is very prone to occur, and that is chronic Bright's disease. This is a combination of morbid conditions whose tendency to recur should not be forgotten. Chronic Bright's disease is, as you know, very often associated with hypertrophy of the left ventricle of the heart and with an increased vascular tension. Then, again, where this condition of the kidney exists we almost always find more or less marked degeneration of the vascular system, the existence of which still further predisposes to cerebral hæmorrhage, as one of the many pathological accidents or sequelæ prone to reveal themselves in this disease.

What I have already said to you concerning occlusion of vessels by embolism and thrombosis, as causes of hemiplegia, will have been sufficient to show the great importance of studying the mode of distribution and the degree of inosculation existing between the several vessels of the cerebrum and of the cerebellum. Knowledge of this kind will prove very useful to you, not only in explaining the extent and distribution of foci of softening and the relative frequency with which it implicates different parts of the brain, but also in accounting for some of the associations of symptoms met with at the bedside. I have, therefore, no hesitation in calling your attention to these anatomical details, more especially as some important additions to our knowledge in this direction have of late been made by Dr. Heubner and also by M. Duret.

Dr. Heubner's results have been based upon his injections of the different arterial regions with coloured fluids in thirty human brains. He divides the entire arterial circulation of the encephalon into two systems—a basal and a cortical. The *basal system* is represented by the circle of Willis, and the principal trunks of the cerebral arteries for a distance of ¼"—1" from this circle. From these trunks numerous very small vessels pass off at an acute or right angle, and sink almost immediately into the various important ganglia at the base of the brain. These vessels are true terminal or "end" arteries, which do not anastomose, so that their distribution can be accurately determined by means of coloured injections. The major part of the intra-ventricular portion, or nucleus caudatus, of the corpus striatum is usually supplied by a small vessel from the anterior cerebral, though occasionally by filaments from the choroid artery of the posterior cerebral; but, with this exception, the blood-supply to the corpus striatum is derived from numerous small twigs given off from the first ¾" of the middle cerebral artery. Thus an embolon lodging, or a thrombus forming, in this situation almost completely deprives the corpus striatum of its blood-supply. The optic thalamus is, however, nourished in a different fashion. Only the anterior and external portions of the thalamus are supplied from the middle cerebral artery,—that is, by prolongations of some of the twigs which go to the lenticular nucleus of the corpus striatum. The posterior portions of this ganglion are supplied by filaments from the posterior cerebral, whilst its anterior and internal portions together with the soft commissure, are supplied by small branches passing off from the anterior communicating artery which almost follow the course of the anterior pillar of the fornix. This triple source of blood-supply might lead us to expect that softening would invade the optic thalamus less extensively than it does the corpus striatum, and also that it would be absolutely rarer in this body, because it is in the main dependent upon the anterior communicating and the post-cerebral arteries — vessels which are much less frequently occluded than the middle cerebrals. I turned, therefore, with some interest to the valuable statistics collected by Gintrac, and found this anticipation to be well grounded. In a total of 60 cases of softening of these parts of the brain (ranged by him partly under the head of "ramollissement" and partly under "encephalite"), the corpus striatum was implicated 39 times, one corpus striatum and one optic thalamus together in 9 cases, and one optic thalamus alone only in 12 cases. But, looking to other important parts at the base of the brain, I must mention that the crura cerebri and the corpora quadrigemina are also almost wholly supplied with arterial twigs from the basal system. Numerous minute vessels for the supply of these parts pass off from the commencement of the posterior cerebral artery. Some penetrate more or less immediately into the crus, whilst others proceed to the corpora quadrigemina, which are very richly supplied with blood by means of three arteries on each side—the two anterior of these being derived from the posterior cerebral, though the third or hindermost vessel comes off from the superior cerebellar artery. Thus, in certain cases of softening of the posterior lobe of the brain from thrombosis of the posterior cerebral artery, we have the association of blindness of one eye occurring on the hemiplegic side; and I need scarcely say

that this is an association having an important diagnostic significance when the onset of the unilateral blindness is sudden and synchronous with the paralysis of the limbs. The pons Varolii is also very richly supplied with minute vessels, which penetrate into its substance from the basilar artery—some directly along the middle line, and others, after a short course, on either side into its lateral regions. An extensive thrombosis in this artery is particularly apt to give rise to severe apoplectic symptoms proving rapidly fatal; and the same thing may be said with reference to any large effusion of blood into the substance of the pons from rupture of one or more of its many mesial twigs.

The *cortical system* of vessels commences where the principal trunks of the anterior, middle, and posterior cerebral arteries begin to divide into branches of the second order. The vessels of this system supply nearly the whole of the convolutional grey matter of the cerebrum and its related white substance in the hemispheres. Its smaller vessels pass off from the larger ones nearly in the direction of the blood-stream, and, subdividing again and again, they pursue long courses through the pia mater before passing perpendicularly into the cortical substance. With regard to the freedom of anastomosis between the branches of the three different main arteries in their distribution to the cortical grey matter, further researches seem needed. According to Dr. Heubner, such anastomoses are free and abundant, whilst according to M. Duret the inosculations are few and very minute. The fact that in many cases of occlusion of the middle cerebral artery softening does not invade any large part of the territory of this vessel, but may be limited to the corpus striatum and to its immediate neighbourhood—that is, to parts supplied by the terminal twigs of the basal system—would seem to show that in many cases, at all events, the inosculations are pretty numerous and easily opened up between the cortical branches of the middle and those of the anterior and posterior cerebral arteries. The distribution of these vessels is as follows. The middle cerebral artery divides in the Sylvian fissure into four or five branches, which in their course over the island of Reil send numerous twigs into its substance. One of these branches supplies the tip and the anterior and upper part of the temporo-sphenoidal lobe, another supplies the third frontal convolution, whilst the remaining branches are distributed anteriorly to the second and part of the first frontal convolution, and posteriorly to the parietal convolutions, to the supra-marginal lobule, and thence onwards to the annectant gyri. Thus the branches of the middle cerebral supply almost all the convolutions on the outer aspect of the hemisphere. They anastomose anteriorly and along the inner margin of the hemisphere, skirting the great longitudinal fissure with offsets from the anterior cerebral—a vessel which supplies the convolutions of the orbital surface of the anterior lobe, as well as those of the inner surface of the hemisphere as far back as the internal parieto-occipital fissure. Lastly, branches of the posterior cerebral artery are distributed to the under and posterior part of the temporo-sphenoidal lobe, where they anastomose with twigs of the middle cerebral, whilst the main trunk turns round to the inner side of the hemisphere, in a position corresponding with the internal parieto-occipital fissure, whence its ultimate branches are distributed over the occipital lobe, anastomosing externally with terminal ramifications of the middle cerebral and internally with those of the anterior cerebral artery. All these details I have recently verified myself. I have only to add that the little brain, or cerebellum, is also supplied by three vessels on each side, which freely anastomose on its surface, and thence send multitudes of minute twigs into its substance. The largest or posterior inferior cerebellar artery arises from the end of the vertebral or from the basilar, and supplies branches to the under surface and to the posterior part of the upper surface. The anterior inferior cerebellar is given off from the middle of the basilar artery, and supplies the anterior part of the under surface of the organ; whilst the superior cerebellar artery is derived from the basilar close to its termination, and passes backwards to the upper surface of the cerebellum, over which it is distributed, and where it anastomoses with its fellow of the opposite side and with the two inferior cerebellar arteries on the same side.

A familiar knowledge of these purely anatomical details, gentlemen, will often prove serviceable in helping you towards an accurate regional diagnosis; and again, after death, it is only by keeping them well in mind, and by minute attention to the particular convolutions or parts of the brain implicated (with the view of comparing lesions with symptoms), that we can hope to advance our knowledge as to the localisation of functions in the cerebral hemispheres, or obtain an intelligent insight into the meaning of those most varied groups of symptoms which frequently prove so perplexing when we stand by the bedside of our patients. But I must pass now to a detailed consideration of these symptoms, and to certain preliminary remarks.

### SYMPTOMATOLOGY.

The symptoms or signs met with in brain disease are very variously produced. Some are due to stimulation or irritation of a portion of brain-tissue; others are produced by the destruction of brain-tissue; and in each case these symptoms may be classed as "direct." In other instances an injury to one portion of the cerebrum or cerebellum, besides giving rise to its own set of direct symptoms, may also produce symptoms of a stimulating or of an inhibitory type upon more or less remote parts. These "indirect" effects or symptoms may occasionally be of a more obvious nature than the direct effects. They may be brought about by simple mechanical means, as by pressure, or may be occasioned in a so-called reflex manner under the influence of structural or functional relationships, the nature of which we are often unable to fathom.

But, however produced, the groups of symptoms actually met with in different cases of hemiplegia are variously dependent upon the situation, the extent, and the suddenness of the lesion, although it is often extremely difficult for us to unravel the respective influences of these three factors. The nature of the lesion is a question of subordinate importance from our present point of view, because almost the same set of symptoms may be produced by the destruction of a given region of the brain by hæmorrhage, or by the cutting off of its blood-supply through embolism or thrombosis. Thus all cases of brain disease have to be looked at from a double point of view, because our diagnosis must be twofold. As Dr. Russell Reynolds pointed out twenty years ago, we must first endeavour to ascertain the locality of the lesion, and then inquire as to its nature. No one has worked more steadfastly in this direction than Dr. Hughlings Jackson, and both the principle and the practice are now very generally recognised and adopted. The first part of our diagnosis, therefore, must be based upon the cumulated results of careful observations, which have to be interpreted by the light derived from cerebral anatomy and physiology. This part of the subject is beset with intrinsic difficulties of a most baffling description. Advance, and that at a very slow rate, can only be made by accurate clinical observation, going hand in hand with most careful post-mortem examination of the brain. But the difficulties in following up these indications are very great. In cases with well-marked symptoms the patients often recover, or they may lapse into a chronic stage, and after a time are lost sight of; or, where pathological observations do succeed the clinical, we may not be able to draw any positive conclusions, either owing to the existence of several lesions, or from the fact that where a single region only is affected, the last stage of the lesion may be such as to blot out all accurate traces, and the nature and extent of the earlier stages with which the most definite symptoms may have been associated. Again, we frequently labour under the still further disadvantage of allowing lesions to escape our observation both in cases in which the brain may appear sound and in others in which some obvious lesions do exist. In an organ of such great extent and complexity we cannot always detect a mere patch of degeneration, and still less can we tell when minute vessels supplying important regions of the brain are occluded, if no sufficient time has elapsed for a focus of softening to manifest itself. The fact also of the existence of two almost similar cerebral hemispheres renders it often still more difficult to draw conclusions as to the physiological effects of lesions on its surface, because to a not inconsiderable extent the functions of such damaged parts may be carried on by corresponding portions of brain-tissue in the opposite hemisphere.

With numerous difficulties of this nature besetting our path, progress in the regional diagnosis of brain disease might almost be despaired of. And yet we have made

the most solid advances during the last thirty years in our knowledge of this part of the subject, and also of the various phenomena connected with the hemiplegic state. In forming an opinion as to the effects pertaining to lesions of different parts of the brain, it is our duty to study the particular association of symptoms in different cases—that is, the many modes in which symptoms may be grouped; and if we find that some particular grouping is especially apt to be met with when a given region of the brain is injured, and that certain other groupings occur having distinctive characters of their own when different portions of the organ are implicated, we obtain data for diagnosis such as we require, and may consequently be enabled to form conclusions respecting our patient of great value from the point of view of prognosis, and in enabling us to reply to the anxious inquiries of friends. Thus we as practitioners of medicine are in a measure independent of those difficult questions which perplex cerebral physiologists—questions as to whether the symptoms in cerebral lesions depend upon the mere abolition of function of the part involved, or whether they are due to a stimulating or inhibitory effect upon functions of distant parts, brought about either by obscure reflex agencies or by pressure indirectly occasioned. We are at least compelled to believe that some of the symptoms in brain lesions are directly produced by stimulation or arrest of function; and we surely have an equal right to believe that any indirect symptoms occasioned in one case would also be apt to recur in subsequent cases with similar injuries. Like causes should produce like results, and this should hold good for the indirect as well as for the direct effects of brain lesions. I am led to make these remarks, gentlemen, in consequence of recent discussions as to the explanation of the important experimental results recently obtained by Dr. Ferrier and others; but more especially in view of the recently expressed opinions of Brown-Séquard concerning the frequency and importance of the "indirect" symptoms occasioned by brain lesions. It seems to me that on this occasion Brown-Séquard has been speaking to physicians from the point of view of a physiologist, without giving them this necessary warning; and that, from the lack of a few explanatory statements, many of his readers might suppose him to believe, on the one hand, that no direct effects were produced by lesions in portions of brain tissue, and that the indirect effects upon which he lays so much stress make their appearance without any definite plan or order. This, however, is surely far from being the view which he would wish to impress upon his readers. After these more or less necessary introductory remarks, gentlemen, we pass on to a detailed consideration of the modes of onset of the hemiplegic states and of their symptomatology.

PREMONITORY SYMPTOMS.—These are often absent altogether, especially in instances of embolism or hæmorrhage, though in many cases belonging to the latter category, and in still more of those in which the hemiplegia is due to thrombosis, prodromata may manifest themselves for days or even weeks before the actual onset of the attack. The explanation of this is to be found in the fact that rupture of very minute vessels or alterations in blood-supply in different parts of the brain may precede for a longer or shorter period that graver event which ultimately suffices to establish the hemiplegic condition.

These forerunning symptoms are more apt to present themselves in the old or middle-aged than in younger persons, and when they do occur, they may be very various in nature. Vertigo, headache, drowsiness, confusion of mind, defective memory, noises in the ears, defects of sight, numbness in the hand or foot, muscular twitchings of the face or of some portion of the upper or lower limbs (especially of the fingers or toes), mistakes in talking or writing, difficulties in articulation, vomiting—any of these signs may exist in different combinations, in different cases, as forerunners of the hemiplegic condition, though of course they may also occur at times without the sequence of a paralytic attack. None are to be relied upon before others as especially indicative of an approaching hemiplegic affection; neither does their presence foreshadow anything definite as to its nature or severity. Such symptoms may be wholly absent before the gravest attacks of hemiplegia, or they may be well marked and long continued where slight attacks subsequently supervene. When they occur, however, they are alarm-signals which should always receive our attention, since, by warning us as to what may follow, they occasionally enable us to do something to avert an otherwise impending attack.

MODE OF ONSET.—The actual mode of onset of hemiplegia differs very much, though for facility of description I shall divide the cases into three principal categories. They are (1) the apoplectiform, in which there is more or less sudden loss of consciousness with resolution of limbs; (2) the epileptiform, in which there is loss of consciousness plus convulsions; and (3) the simple mode of onset, where there is neither loss of consciousness nor convulsions. This seems to me to be the most useful kind of division, although you must understand that many cases are to be met with of an intermediate character, and not capable of being definitely ranged under either of these categories.

1. *Apoplectiform onset.*—This is the mode of onset popularly known as a "fit of apoplexy." Taken in its proper and original sense, the word "apoplexy"—as used by the early Greek writers—was meant to imply a sudden loss of consciousness and volition, with more or less disturbance of the circulation and respiration. This necessarily gave a certain vagueness to the term, because the state itself, as increasing knowledge showed, was one which might be induced in various ways. But when, in the early part of this century, certain physicians began to use the word "apoplexy" as synonymous with hæmorrhage into the brain, simply because such hæmorrhage was a very frequent cause of apoplexy, the way was paved for a use of this term which was decidedly objectionable. Hæmorrhages into other organs came to be spoken of as "apoplexies," and thus the original meaning of the term was entirely lost sight of.

But whilst restricting ourselves to the use of the term in its original sense, we must always remember that the assemblage of symptoms included under this word "apoplexy" may be very variously produced, and may or may not be followed by a condition of hemiplegia. On the various causes of the apoplectic condition I cannot now dwell—it would require a separate clinical lecture to do even faint justice to such a subject. I will only beg you to remember that most of the cases which in former days were spoken of as "simple" apoplexy, or "serous" apoplexy, because no satisfactory cause for the condition could be subsequently recognised in the brain, were instances of death in an epileptiform attack of the kind spoken of by Trousseau under the name "apoplectiform cerebral congestion," or they were cases of multiple and wide-spread embolism of minute arteries in which incipient softening of large extent was overlooked, or else they were instances of death from uræmic convulsions and coma.

In a small number of cases the onset of apoplexy may be absolutely sudden, though, as Trousseau insists, in a much larger number of cases it supervenes upon slighter symptoms which have preceded it by a few minutes, or even by an hour or more. When the apoplectic attack is well marked the patient drops in a condition of profound coma, and is insensible to stimuli of all kinds. His senses are for a time extinguished. The face is often flushed and swollen and the lips livid, though at other times it may be pale and clammy; the head and neck feel warm, and the carotid and other arteries throb violently; the eyelids are closed, the conjunctivæ injected, and the eyeballs immovable, with the pupils sluggish, though variable as regards their state of contraction; the respiration is generally deep and regular, with or without stertorous inspiration and protrusion of the cheeks during expiration; the pulse is usually full and not frequent; the limbs when raised drop like inert bodies, so that there is either complete muscular resolution or else the powerlessness is more marked on one side of the body than on the other. Described in general terms, these are the classical symptoms of the apoplectic condition, and in this state the patient may die after a few minutes, a few hours, or a few days, where the condition itself has been brought about by some severe lesion of the brain. On the other hand, in slighter cases, the apoplectic condition may last only half an hour or less, or it may gradually pass off after a few hours; and in these slighter cases other related symptoms manifest themselves. For you must understand that consciousness, and that higher directive power by which the patient not only receives impressions and replies to questions but also directs his thoughts upon particular subjects, may be lost in various degrees. We may recognise,

in fact, every kind of gradation between the profoundest coma and a mere slight mental incoherence, the gap being filled up by various states of stupor and of delirium. For instance, where the coma is not very profound, the patient, when loudly spoken to, may raise his eyelids for a moment or two, though he perhaps takes no further notice; or he may reply in a monosyllable when loudly pressed with any question, and then again lapse into his condition of stupor. Should the insensibility be still less profound, the patient's replies may be longer, though still incomplete, vague, and slow. At other times such patients are restless and more or less delirious, especially where we have to do with slight hæmorrhages upon the surface of the brain, or with changes in its cortical grey matter.

Turning now to a very brief consideration of the conditions under which this apoplectiform mode of onset presents itself, at once let me say that this set of symptoms, of which loss of consciousness is the chief, is as much dependent upon the *extent* and *suddenness* of the lesion as upon the particular region affected. The occurrence of the apoplectic condition, therefore, of itself gives us almost no clue as to the region of brain injured. A large and sudden outpouring of blood, for instance, into almost any part of the brain-substance may give rise to apoplectic symptoms; whilst, on the other hand, a small effusion more slowly poured out may occur in any situation without entailing loss of consciousness. And you must not forget that the sudden and complete stoppage of one of the large cerebral arteries by embolism may give rise to much the same effects as a sudden moderate outpouring of blood into the vascular area of such an artery. But although we are not able to say that the injury of any given region of the brain always or necessarily entails loss of consciousness, still past experience does enable us to say something as to the conditions with which these symptoms are most frequently associated. The region which above all others, when extensively damaged or cut off from its blood-supply, gives rise to profound coma is that central knot to which all cerebral fibres converge—the pons Varolii. More frequently, however, we find this condition of coma produced by an extensive effusion of blood, which breaks its way from the brain-substance into the lateral ventricles, or by a large bleeding into the centrum ovale of either hemisphere; or again by an extensive effusion upon the surface of the hemisphere into the so-called arachnoid sac; lastly, the same comatose condition is produced where lesions occur simultaneously on both sides of the brain, or where a lesion of one side supervenes when the opposite hemisphere has been previously damaged to a grave extent.

FOREIGN BODY IN THE MALE URETHRA: INGENIOUS EXTRACTION.—In the tenth number of the *Bulletin de Thérapeutique* (1873), Messrs. Andant and Lonstalot mention the case of a gentleman suffering from stricture, who was in the habit of passing an elastic catheter for himself. One day, through absence of mind or some other cause, he passed the instrument (No. 7) commencing by the end to which the bone ring is attached instead of the proper end supplied with the eye. After reaching the perineal region, he attempted to withdraw the catheter, but the latter returned without the ring, which had become detached and remained in the urethra. Dr. Andant was sent for and requested by the patient to push the ring into the bladder, as pain and a wish to pass water had supervened. At a consultation with Dr. Lonstalot it was resolved to use the following contrivance:—A No. 7 catheter was obtained at a chemist's, and the bone ring being taken to a smith, an iron rod, of the same diameter as No. 7, was chosen, one end of which was turned so as to act as a screw, fitting the grooves of the bone ring. The instrument was put into the hands of the patient, because, by long practice, he had learned the peculiarities of his urethra. Dr. Andant had, however, previously introduced a silver catheter with great caution, and ascertained the presence of the bone ring in the urethra. The patient was directed, when reaching the ring, to roll the free end of the rod in his fingers, so as to introduce the male screw into the ring. This was very cautiously and cleverly done, and when it was supposed that the rod was sufficiently fixed, it was slowly withdrawn, and the ring was brought to light, to the great satisfaction of both the patient and the surgeons.

## ON THE WASTE OF LIFE BY PREVENTABLE DISEASE.

BY R. BRUDENELL CARTER, F.R.C.S.,
OPHTHALMIC SURGEON TO ST. GEORGE'S HOSPITAL.

(*Continued from page* 685.)

IT was mainly as a result of the labours of Mr. Simon and his staff, and in consequence of the light which these labours had thrown upon the sickness and mortality of the country, that the Royal Sanitary Commission was appointed. The composition of this Commission left something to be desired, and its report, which served as a basis for the Public Health Acts of 1871 and 1872, was open to much criticism. The commissioners, however, saw three points clearly—first, that the constant overlapping and possible conflict of different sanitary authorities required to be remedied; secondly, that the relief of sickness and the relief of destitution were so intimately connected together that they might with advantage be placed under a common head; and thirdly, that the local authorities to whom these functions were committed should be of a higher character than the boards of guardians as they then existed. The Acts, however, fell very far short of the recommendations of the commissioners, and, in principle, departed from these recommendations very widely. They transferred nearly all local sanitary authority to boards of guardians, but they left these bodies essentially unchanged. They provided for the appointment of a medical officer of health and of an inspector or inspectors of nuisances in every district, and they handed over the entire sanitary government of the kingdom, together with the Medical and Engineering Departments of the Privy Council, to the tender mercies of the Poor-law Board.

In speaking of a Government office, into the interior recesses of which the outside world is unable to penetrate, one is always liable to fall into trivial errors of a technical kind, which the initiated are then prone to magnify into seeming importance. I may possibly, therefore, have received a certain amount of erroneous information, but, so far as the facts have been made known to me, the Poor-law Board consists of a Parliamentary official head styled the President, of one or two great officers of state, Cabinet Ministers, who presumably take no part in its operations, of a staff of permanent secretaries and clerks, and of a body of inspectors, who are mostly members of the bar. These inspectors have no common head other than the president, to whom they report directly, each one from his allotted district. The Poor-law Board is believed to have framed certain regulations for the conduct of the business entrusted to it, and the chief duty of its various officers has been to see that these regulations were upheld. Towards evils which the regulations brought about, and towards evils which the regulations failed to cure, the Board has maintained an attitude of calm unconsciousness. Its functions were so regulated with regard to boards of guardians as to deprive these bodies of every shadow of real authority, and to reduce them to the level of machines. The rates expended upon the poor were contributed by the persons whose representatives the guardians were; but the representatives could not spend a single farthing of the money of their constituents. They could not give an extra shilling a week to a workhouse porter, or an extra half pint of beer to an inmate, they could not engage a servant or dismiss one—not even so much as a "probationary wardswoman"—without "the sanction of the Poor-law Board." The clerks at Gwydyr House were chiefly occupied in recording that this "sanction" had been given or withheld, as the case might be, in multitudes of cases about the merits of which the Board, however that abstraction is understood, could have no sort of knowledge, but which were presumed to be measured by the Procrustean standard of the "regulations." The Board was very

jealous of this authority, and maintained it with great strictness by the intervention of auditors, whose business it was to disallow all unsanctioned charges, and to leave the guardians who had signed the cheques for them to pay the amounts out of their own pockets. Sometimes, of course, a board, in a state of uncertainty, would appeal to an inspector for advice; and then, asking for a fish, they would receive a serpent. The effect of legal training upon persons of a certain calibre is to develop in them a morbid dread of responsibility; and the inspectors were accustomed to avoid responsibility by declining to advise, and by referring the guardians to some ambiguous Act of Parliament—leaving them, of course, to pay if they made a mistake. Men of character and station, as a rule, did not care to hold an office in which they were kept in tutelage, and were treated as cyphers by a Government department; and so the guardianship of the poor fell almost entirely into the hands of small retail shopkeepers and others their congeners, whose occasional vagaries seemed almost to justify the surveillance to which they were subjected, and who often brought the very name of local self-government into disrepute. If I may be pardoned for the digression, I would say that the contrast between school boards and boards of guardians seems to me to be particularly instructive. School boards have power; and therefore men fit to exercise power are willing to be elected upon them. Boards of guardians have no power; and hence they are largely composed of persons to whom it could not safely be entrusted.

On one point, however, the Poor-law Board and the average board of guardians have long been in entire and sweet accord, and that point is with regard to the proper treatment of doctors. I will not weary you with details that are only too familiar; and with which, if you care for them, the Association of Poor-law Medical Officers can supply you *ad nauseam*. The medical officers were frequently snubbed, and the effect of this policy, consistently pursued, was to remove from the Poor-law service a large proportion of those medical officers who were most calculated to elevate it, and distinctly to lower, in the estimation of the public, the status of those who remained. Moreover, as I need hardly say, this treatment of the medical officers soon produced a denial of mercy to the sick poor, of which there could perhaps be no better illustration than the disclosures made by THE LANCET with regard to the state of workhouse infirmaries—a state which I have thus described elsewhere:—"The buildings were nearly all of them entirely unsuited for the reception of sick persons, and many of them were totally unfit for human habitation. The so-called 'nursing' was in almost every case performed by a mob of pauper women—ignorant, decrepit, very often drunken, and personally cruel; the medicines were given at haphazard, because the nurses were unable to read the labels on the bottles; the most scandalous neglect of cleanliness and decency was widely prevalent; the sick and the lunatics were herded together with ablebodied paupers; overcrowding and utter neglect of ventilation were constantly observed. The medical officers were shamefully overworked and underpaid, were required to find all medicines out of their wretched stipends, and, in fact, were tempted in every possible way to scramble through their duties in the most perfunctory manner. And yet the legal inspectors scarcely ever made a serious remonstrance—their observations and inquiries were matters of routine, and their reports in the visiting books were almost always of a complimentary character. If any unfortunate, whether inmate or official, whether for good or for evil, had violated a 'regulation' of the Poor-law Board, for him there would have been no lack of vigilance or of condemnation. But to all evils which the 'regulations' failed to touch, the inspectors were blind and deaf; and they gave the sanction of their tacit approval to matters which, when at last disclosed, were felt to admit of neither excuse nor palliation." Since then, under the same authority and supervision, the contagious ophthalmia to which I have already referred has been suffered to run riot in our workhouse schools; and it is said that the new infirmaries, by which the abuses disclosed by THE LANCET were to be for ever remedied, have by this time produced a luxuriant crop of fresh evils to reward the conductors of some future inquiry.

Under these circumstances the new Public Health Acts were hailed at Gwydyr House with extravagant delight. The activity of the Board, in medical and sanitary matters, which had previously been limited to injuring and insulting parish doctors, was now about to be enlarged by the surrender into its hands of a great medical philosopher, and of his scarcely less distinguished subordinates. The absence of any apparent sense of responsibility in accepting this surrender was sufficiently complete to remind me of a pleasant story, I believe a mythical one, but which, if not true, is surely *ben trovato*, about Newton and his dog. The dog was left in charge of the library, and sprang upon the table to bid defiance to some intruder. By a chance movement, it overturned an ink-bottle upon the papers with which the table was strewn, and destroyed for ever the calculations upon which the discoverer of gravitation had been engaged. The Poor-law Board threw its inkstand over the work of the Medical Department of the Privy Council, and tried to obliterate its records. The Reports of that Department form the foundations of sanitary science, and many of the volumes containing them have long been out of print. At the time of the transfer of authority these volumes were about to be reissued; but by one of the first acts of the Local Government Board, if I have been rightly informed, this reissue was countermanded. The most pressing duty of the Poor-law Board—I still say Poor-law Board, in order to give emphasis to the fact that, although the hands became the hands of Esau, the voice was still the voice of Jacob, the supplanter, and that the new Local Government Board was only the old Poor-law Board "writ large," with no change in its organisation to correspond with the absolute revolution in its functions—the most pressing duty was to superintend and advise concerning the parcelling out of England among medical officers of health, and to give to these officers some definite instructions with regard to the work they were to undertake. The framers of the Public Health Acts seem to have laboured under the impression that a man could be made into a medical officer of health by merely calling him one, and by allowing him to draw a stipend in that capacity; for they gave no hint of the sources from which they expected the demand they were creating to be supplied. There were in England, at that time, a small number of trained and experienced medical officers of health, thoroughly conversant with all the duties and difficulties of the position; and at least three of them were in the employment of the Government, and had passed under the control of the Poor-law Board from having been in the Medical Department of the Privy Council. Among these, of course Mr. Simon was the first, alike by official rank, by seniority, and by scientific reputation; and it was clearly the duty of the Poor-law Board to consult him, and to hear and to try to understand his advice, whether or not it might eventually be acted upon. Here, unfortunately, a hitch soon made itself felt. It is said that Newton's only observation to his spaniel was—"Oh, Diamond, Diamond, you little know the mischief you have done"; and we have all admired the forbearing wisdom with which Captain Lemuel Gulliver, when he discovered that he had been bound during his sleep by the Lilliputians, refrained from gratifying his natural impulse to take up a few handfuls of the pigmies and to dash their brains out. But I am told that the illustrious medical captive, in his unaccustomed bondage, was not equally forbearing, and that he did not always restrain the sarcasm of which he is so great a master. However this might be, it soon became apparent that the Poor-law Board had determined to be guided, in medical matters, by the light of nature alone; and the President not only ceased altogether to consult Mr. Simon, but he even refused to see him; he, a responsible minister, refused to see the chief of one of the departments under his control. The portion of the Poor-law Board organisation that does duty for a mind (I still say Poor-law Board, because I cannot tell whether I am speaking of a minister or of a secretary's secretary) has been aptly compared to the pupil of the eye—the more light is thrown upon it the more contracted it becomes; and I have no doubt that it would have been perfectly well able to resist the force of all the facts and arguments that Mr. Simon could have brought to bear upon it. But I still hold that it was a matter of official duty to hear those facts and arguments, and that the refusal to hear them imposed upon someone a responsibility from which a wise man would have

shrunk, but which the Poor-law Board eagerly rushed on to assume. The Board committed the sanitary organisation of the kingdom to the hands of the old Poor-law inspectors, and either gave them no instructions at all, or different instructions to each of them, or, as the blunders they made became too flagrant to be concealed, changed the instructions from time to time, while the work of organisation was still in progress—changed horses while crossing the stream. The inspectors themselves, gentlemen of high character and of good capacity for their proper functions, of whom personally I would speak with every respect, were like men lost in a fog. They all appear to have lain under the delusion to which I have already referred, as dating from the time of the General Board of Health, to the effect that the problems of sanitary science are simple and easy, requiring no special knowledge for their solution. Had it not been for the influence of this wild absurdity, the inspectors would surely have repudiated the false position in which they were placed by their official head. As it is, they accepted that position, with the result that they have brought about a state roughly comparable to that which would arise in the Court of Probate if, for the next year or so, doctors were to enjoy a monopoly of will-making. A recent article in *The Times* paper has described, in some detail, the work which these inspectors have accomplished, the way in which, in some places, a district has been parcelled out among several medical officers of health, while, in another, a medical officer of health has been parcelled out among several districts; and how, in both cases, all the evils incidental to the arrangement have been secured, and all the possible benefits rendered nugatory, by the unintelligent manner in which it has been carried into effect, and by the ignorance of the inspectors with regard even to the most elementary principles of the affairs that were committed to them. After giving several instances and particulars the article proceeds in a way that I may be permitted to quote:—"The state of things here described largely frustrates the objects of the Public Health Act, 1872, and it has given rise to evils which will probably require the interference of the Legislature to remove. If it were solely a question of organisation and of the mischiefs arising from an imperfect adaptation of means to ends, the mischief would be of the gravest. But it is more than this, for the new sanitary authorities and their officers have been left entirely without guidance as to the new duties they have to undertake. The vast experience as to these duties at the command of the Local Government Board has been withheld from them, and they are unwittingly repeating many of the mischievous and costly blunders through which the older sanitary authorities had to struggle. It is not difficult to understand how all this has come about, for there is abundant information to aid the judgment. It has arisen from the extension to public health administration of the mode of dealing with sanitary questions peculiar to the old Poor-law Board. It was the custom of that Board to treat sanitary matters coming within its scope as non-technical questions, such as its inspectors were fully competent to deal with. It was this custom which led to the complete breakdown of public vaccination when under the control of the Board. Those who are familiar with the history of public vaccination at that time will have been struck with the parallelism between the fate which befel the Vaccination Acts, 1840 and 1853, and that which has now more rapidly befallen the Public Health Act, 1872. In the one case as the other, the technical nature of the subject matter of the Acts was ignored. The Vaccination Acts were carried out with reference to the routine of Poor-law arrangements, and in a manner utterly at variance with the principles on which efficient vaccination could be secured. The administration of the Vaccination Acts under the Poor-law Board became a public scandal, and the regulation of public vaccination had to be removed from it by the Legislature. It is a curious instance of the irony of fate that this regulation should now have passed back to the very officials under whom the failure had occurred. Public vaccination, after its regulation had been transferred to the Privy Council, became a type of thorough and effective technical administration, but it is actually rumoured that the Local Government Board may not improbably revert to the form of administration of the Vaccination Acts which was peculiar to the old Poor-law Board."

Besides the achievements thus recorded, the Poor-law authorities permitted their inspectors to invade that field of sanitary research which Mr. Simon and his staff had made so peculiarly their own. Under cover of reporting upon the area of certain districts—a matter which might appropriately have been left to the engineering department,—the legal inspectors were encouraged to report also upon the general sanitary state and requirements. It is to be hoped that some member of the House of Commons will prevail to have these reports given to the public, for I am told that they are not only extremely curious, but that some of them would, if they were only accurate, be subversive of all former experience on the subjects to which they refer. Up to this time, they have been secluded from the vulgar gaze in the pigeon-holes of Gwydyr House, so that it remains an open question, on which it would be possible to bet, whether they contain more blunders or words. That they do contain blunders is, I believe, unquestionable; and I am told that some of the officers of Mr. Simon's staff have for months been laboriously occupied in correcting these blunders, to the neglect of their own proper duties, and to the loss to the country of their inestimable services in tracing out the causes of disease. For many months, above this confusion worse confounded, the Poor-law Board, like Milton's chaos, sat umpire, and by decision more embroiled the fray. A great and resolute effort was being made, it is said, to abolish the Medical Department of the Board entirely, to check the exuberant activity of the General Registry Office, and to restore the control of vaccination to the purely Poor-law officials, so that the public health might be supervised by the aid of lawyers and regulations alone; when the events occurred which led to the resignation of the Ministry, and which, for the time at least, relegated these projects to the land of dreams.

*(To be continued.)*

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ON

## SOME POINTS IN THE DIETETIC TREATMENT OF DISEASE.*

BY E. A. PARKES, M.D., F.R.S.

WHILE making some experiments on soldiers at Netley with different kinds of food I have come across some facts which may be of interest in a practical point of view, or will at any rate elicit the views of members of the Society on the subject of diet in disease.

I. The first point is *the production of dyspepsia and its relief by diet.*

I was at one time experimenting on two men with a diet of dried meat and bread, no vegetables and no fats being given. The object was to see if soldiers could be kept in health on such a diet for two or three weeks, as in that case a man would be able to carry almost enough food to last him, it may be, all the time of a rapid expedition, such as the march to Coomassie; at any rate, the amount of waggon transport required would be greatly lessened. The meat was good and was merely dried, so that it contained only 10 or 12 per cent. of water instead of 70; the bread was good and of the ordinary kind. In both men this diet produced in two or three days very great indigestion and depression of spirits, and in both an eruption of little pimples, like acne, came out on the face and shoulders. In both cases the dyspeptic symptoms and the little eruption were at once removed, not by omitting the dried meat, but by adding starches and butter to the same diet. The illness produced by the one kind of food, and the immediate cure which followed the addition of alimentary principles previously deficient, seemed to me very important in connexion with dieting in disease, and especially in fevers, where often such quantities of animal broths are given, and, with the exception perhaps of a little arrowroot, no starches and no fats are ordered.

The relief to the dyspepsia of these two men by adding starches and fats was shown in another case.

An inventor sent to the War Office a dried food composed of meat, flour, potatoes, some other vegetables, and salt.

* A paper read before the Medical Society of Southampton.

It was supposed to contain all the essentials of a good diet, and it was thought that twelve or thirteen ounces would be a sufficient ration for a day, and that a soldier could carry enough for twelve days. Many foods of this kind have been proposed, and they have almost all failed on trial, owing, I believe, chiefly to their being too highly dried. In the experiment I now refer to this food produced in two or three days the most violent dyspepsia, and made the man feel so uncomfortable and depressed that he declared he would rather starve than eat it. I therefore left it off altogether, and put him on a diet composed of arrowroot and butter deprived of all casein, and gave him no salt. The effect of this was perfectly marvellous: all symptoms of dyspepsia disappeared in twenty-four hours; the man at once recovered his spirits, and it was quite clear that the irritative condition produced by the concentrated food had been at once removed.

The treatment of "irritable gastric dyspepsia" by mild farinaceous and vegetable food is well known, but the rapidity of cure of these cases seems to me to show that the best way would be not to give vegetables at all, or any nitrogenous food, but for two or three days to let only starches and fats in some digestible form, and without salt, enter the stomach. I found these men could take from two to three ounces of butter in the shape of arrowroot biscuits, and also spread upon these biscuits, without producing any of the dreaded "bilious" effects usually attributed to fatty foods.

In reference to the little papular eruption produced in two persons by a diet too largely composed of meat, I think some interest attaches to a fact of an opposite kind. In 1867, Dr. Passavant, of Frankfort, published an interesting paper (*Archiv der Heilkunde*, 1867, p. 251) on the treatment of non-syphilitic psoriasis inveterata by means of a meat diet. He had himself suffered for twenty-five years from psoriasis, and had vainly tried every possible remedy. He was cured at last and completely by a meat diet; that is, by Bantingism, but without the alcohol allowed in that system. A case of eczema squamosum was also cured by this diet.

Just after I read this I was asked to see a case of most inveterate psoriasis, in consultation. I found every remedy I suggested had been tried. At last, in despair, I mentioned Dr. Passavant's observation, and it was agreed to try the meat diet without any medicine. The patient rapidly recovered. I have had no other case since in which it could be tried, and I mention the fact chiefly to know if the plan has been used by others, partly because in my two cases of papular eruption the meat diet also appeared to have a special influence on the skin, though it was in the contrary way—viz., it produced instead of cured a disease.

II. The next point I wish to bring before the Society are some other effects of a non-nitrogenous diet.

I have noticed two conditions to be produced by a purely non-nitrogenous diet, which may be useful in the treatment of disease.

Such a diet lessens in a very great degree the acidity of the urine. We know that the free urinary acidity is usually attempted to be lessened in two ways: first, by giving alkaline medicines or drugs which become alkaline in the body, as the acetates or citrates; and, secondly, by giving fresh fruits and vegetables, which contain similar salts. Now, in both these plans, it has appeared to me that the acid is merely neutralised, and that its formation is not prevented. On the contrary, I have formerly given some evidence to show that the taking of alkalies may really increase the acid-building processes in the body. What these two plans do, I take it, is to neutralise a urine unduly acid, and thereby render it less irritating to the urinary surfaces; and this is a great service, only that it is not all that is sometimes required.

A non-nitrogenous and non-saline diet lessens the formation of acid, as the following facts will show:—

The normal amount of free acidity in the urine is usually expressed, as proposed by Julius Vogel, as equal to so much crystallised oxalic acid; the normal daily average amount of free acidity in the urine of healthy men is equal to the acidity of from two to four grammes of crystallised oxalic acid.

I kept a healthy man on ordinary meat diet for fourteen days. The mean free acidity was equal to 2·749 grammes of oxalic acid in twenty-four hours; the highest amount on any one day was 3·369 and the lowest 2·122 grammes. I then put him on a diet entirely non-nitrogenous, and very nearly non-saline. On the first day the free acidity of the twenty-four hours' urine sank to 1·847 grammes, and on the second day to 1·255 grammes, or less than one-half the average.

I kept another man on ordinary diet for twelve days; the mean daily acidity was equal to 3·406 grammes of crystallised oxalic acid. He was then put on a non-nitrogenous diet for four days; the mean daily acidity of these four days was only equal to ·873 gramme of oxalic acid, or one-fourth the normal amount; on the third day it was only ·618 gramme, or one-sixth the normal amount. He then returned to meat diet, and subsequently was placed again for five days on non-nitrogenous and non-saline food. On the first three days the mean acidity was only ·509 gramme in each twenty-four hours; on the fourth day the amount was only ·0368 gramme, and on part of the day the urine was alkaline; on the fifth day the acidity was only ·444 gramme, or one-eighth the normal amount.

I notice also, in Dr. Pavy's excellent book on Food, that Mr. Mahomed in some experiments on a non-nitrogenous diet found his urine became alkaline.

Now to ensure this diminution of acidity there must be more than a mere farinaceous and milky diet; at least I found a man who took only oatmeal and milk had a free acidity equal to 3·022 grammes of oxalic acid on an average of many days. To produce the effect the diet must be non-nitrogenous, perhaps non-saline. This diet also increases the flow of urine, so that I am sure it must be found useful in gravel and uric-acid deposits generally.

I was curious to know whether when a man was on this non-nitrogenous diet he would pass any uric acid; the quantity of urea daily excreted was of course greatly lessened, and so was the uric acid, but even after three or four days of non-nitrogenous diet I could still always find a little uric acid in the urine. This seemed to me an argument against the origin of urea from uric acid; for why, when all nitrogen was cut off, and consequently the oxygen must have been in relative excess, should not all the uric acid have been converted into urea if that is its usual origin in the body? It was not so converted, however, but passed out *pari passu* with the urea as if furnished by special cells. At any rate we may be sure we cannot entirely exclude uric acid by a non-nitrogenous diet, though we can greatly lessen its amount.

The second effect produced by a non-nitrogenous diet is a great lessening of the power of the heart, which is perceptible twenty-four hours after the commencement of the diet. The heart beats more feebly, the pulse is smaller and softer, and if the sphygmograph is used, the height of the up-stroke is only half of what it is in the normal state of the man. This action on the heart is so marked that it should make us watch the effect of a non-nitrogenous diet. It may be useful, I think, in two cases—first, when we wish to reduce the action of a powerfully acting and excited heart, and, secondly, in the treatment of aneurisms. The treatment of Valsalva by rest, bloodletting, and low diet, has been revived in a better form by Tufnell, who has met with great success. Perhaps the use from time to time of a perfectly non-nitrogenous diet, in addition to rest, might aid in lessening the force of the heart, and therefore increasing the tendency to coagulation in the sac.

The mode in which I gave the non-nitrogenous diet was as follows:—Butter was melted in a jug placed in a water-bath, and the liquid oil was poured off. Arrowroot cakes were made with a portion of this butter, and a little sugar was added. A good cook can thus make very agreeable cakes, which should not be in the least tough. These arrowroot cakes were eaten by my patients with great relish when buttered; they also took arrowroot jelly sweetened.

The healthy men on whom I experimented ate as much of this food as they liked; they took on an average ten ounces of arrowroot, six ounces of sugar, and two ounces and one-third of butter, in each twenty-four hours. This quite satisfied hunger, and maintained weight; and all four men on whom I made these trials liked this diet, and felt perfectly well on it. The longest time I kept a man on it was five days, and he did a hard day's work on the fifth day.

If it is wished to add a little nitrogen to suit a diet, but not to give meat or bread, it is best done by substituting

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I. The first point is *the production of dyspepsia and its relief by diet.*

I was at one time experimenting on two men with a diet of dried meat and bread, no vegetables and no fats being given. The object was to see if soldiers could be kept in health on such a diet for two or three weeks, as in that case a man would be able to carry almost enough food to last him, it may be, all the time of a rapid expedition, such as the march to Coomassie; at any rate, the amount of waggon transport required would be greatly lessened. The meat was good and was merely dried, so that it contained only 10 or 12 per cent. of water instead of 70; the bread was good and of the ordinary kind. In both men this diet produced in two or three days very great indigestion and depression of spirits, and in both an eruption of little pimples, like acne, came out on the face and shoulders. In both cases the dyspeptic symptoms and the little eruption were at once removed, not by omitting the dried meat, but by adding starches and butter to the same diet. The illness produced by the one kind of food, and the immediate cure which followed the addition of alimentary principles previously deficient, seemed to me very important in connexion with dieting in disease, and especially in fevers, where often such quantities of animal broths are given, and, with the exception perhaps of a little arrowroot, no starches and no fats are ordered.

The relief to the dyspepsia of these two men by adding starches and fats was shown in another case.

An inventor sent to the War Office a dried food composed of meat, flour, potatoes, some other vegetables, and salt.

* A paper read before the Medical Society of Southampton.

It was supposed to contain all the essentials of a good diet, and it was thought that twelve or thirteen ounces would be a sufficient ration for a day, and that a soldier could carry enough for twelve days. Many foods of this kind have been proposed, and they have almost all failed on trial, owing, I believe, chiefly to their being too highly dried.

In the experiment I now refer to this food produced in two or three days the most violent dyspepsia, and made the man feel so uncomfortable and depressed that he declared he would rather starve than eat it. I therefore left it off altogether, and put him on a diet composed of arrowroot and butter deprived of all casein, and gave him no salt. The effect of this was perfectly marvellous: all symptoms of dyspepsia disappeared in twenty-four hours; the man at once recovered his spirits, and it was quite clear that the irritative condition produced by the concentrated food had been at once removed.

The treatment of "irritable gastric dyspepsia" by mild farinaceous and vegetable food is well known, but the rapidity of cure of these cases seems to me to show that the best way would be not to give vegetables at all, or any nitrogenous food, but for two or three days to let only starches and fats in some digestible form, and without salt, enter the stomach. I found these men could take from two to three ounces of butter in the shape of arrowroot biscuits, and also spread upon these biscuits, without producing any of the dreaded "bilious" effects usually attributed to fatty foods.

In reference to the little papular eruption produced in two persons by a diet too largely composed of meat, I think some interest attaches to a fact of an opposite kind. In 1867, Dr. Passavant, of Frankfort, published an interesting paper (*Archiv der Heilkunde*, 1867, p. 251) on the treatment of non-syphilitic psoriasis inveterata by means of a meat diet. He had himself suffered for twenty-five years from psoriasis, and had vainly tried every possible remedy. He was cured at last and completely by a meat diet; that is, by Bantingism, but without the alcohol allowed in that system. A case of eczema squamosum was also cured by this diet.

Just after I read this I was asked to see a case of most inveterate psoriasis, in consultation. I found every remedy I suggested had been tried. At last, in despair, I mentioned Dr. Passavant's observation, and it was agreed to try the meat diet without any medicine. The patient rapidly recovered. I have had no other case since in which it could be tried, and I mention the fact chiefly to know if the plan has been used by others, partly because in my two cases of papular eruption the meat diet also appeared to have a special influence on the skin, though it was in the contrary way—viz., it produced instead of cured a disease.

II. The next point I wish to bring before the Society are some other effects of a non-nitrogenous diet.

I have noticed two conditions to be produced by a purely non-nitrogenous diet, which may be useful in the treatment of disease.

Such a diet lessens in a very great degree the acidity of the urine. We know that the free urinary acidity is usually attempted to be lessened in two ways: first, by giving alkaline medicines or drugs which become alkaline in the body, as the acetates or citrates; and, secondly, by giving fresh fruits and vegetables, which contain similar salts. Now, in both these plans, it has appeared to me that the acid is merely neutralised, and that its formation is not prevented. On the contrary, I have formerly given some evidence to show that the taking of alkalies may really increase the acid-building processes in the body. What these two plans do, I take it, is to neutralise a urine unduly acid, and thereby render it less irritating to the urinary surfaces; and this is a great service, only that it is not all that is sometimes required.

A non-nitrogenous and non-saline diet lessens the formation of acid, as the following facts will show:—

The normal amount of free acidity in the urine is usually expressed, as proposed by Julius Vogel, as equal to so much crystallised oxalic acid; the normal daily average amount of free acidity in the urine of healthy men is equal to the acidity of from two to four grammes of crystallised oxalic acid.

I kept a healthy man on ordinary meat diet for fourteen days. The mean free acidity was equal to 2·749 grammes of oxalic acid in twenty-four hours; the highest amount on any one day was 3·269 and the lowest 2·122 grammes. I then put him on a diet entirely non-nitrogenous, and very nearly non-saline. On the first day the free acidity of the twenty-four hours' urine sank to 1·847 grammes, and on the second day to 1·256 grammes, or less than one-half the average.

I kept another man on ordinary diet for twelve days; the mean daily acidity was equal to 3·406 grammes of crystallised oxalic acid. He was then put on a non-nitrogenous diet for four days; the mean daily acidity of these four days was only equal to ·873 gramme of oxalic acid, or one-fourth the normal amount; on the third day it was only ·618 gramme, or one-sixth the normal amount. He then returned to meat diet, and subsequently was placed again for five days on non-nitrogenous and non-saline food. On the first three days the mean acidity was only ·509 gramme in each twenty-four hours; on the fourth day the amount was only ·0368 gramme, and on part of the day the urine was alkaline; on the fifth day the acidity was only ·444 gramme, or one-eighth the normal amount.

I notice also, in Dr. Pavy's excellent book on Food, that Mr. Mahomed in some experiments on a non-nitrogenous diet found his urine became alkaline.

Now to ensure this diminution of acidity there must be more than a mere farinaceous and milky diet; at least I found a man who took only oatmeal and milk had a free acidity equal to 3·022 grammes of oxalic acid on an average of many days. To produce the effect the diet must be non-nitrogenous, perhaps non-saline. This diet also increases the flow of urine, so that I am sure it must be found useful in gravel and uric-acid deposits generally.

I was curious to know whether when a man was on this non-nitrogenous diet he would pass any uric acid; the quantity of urea daily excreted was of course greatly lessened, and so was the uric acid, but even after three or four days of non-nitrogenous diet I could still always find a little uric acid in the urine. This seemed to me an argument against the origin of urea from uric acid; for why, when all nitrogen was cut off, and consequently the oxygen must have been in relative excess, should not all the uric acid have been converted into urea if that is its usual origin in the body? It was not so converted, however, but passed out *pari passu* with the urea as if furnished by special cells. At any rate we may be sure we cannot entirely exclude uric acid by a non-nitrogenous diet, though we can greatly lessen its amount.

The second effect produced by a non-nitrogenous diet is a great lessening of the power of the heart, which is perceptible twenty-four hours after the commencement of the diet. The heart beats more feebly, the pulse is smaller and softer, and if the sphygmograph is used, the height of the up-stroke is only half of what it is in the normal state of the man. This action on the heart is so marked that it should make us watch the effect of a non-nitrogenous diet. It may be useful, I think, in two cases—first, when we wish to reduce the action of a powerfully acting and excited heart, and, secondly, in the treatment of aneurisms. The treatment of Valsalva by rest, bloodletting, and low diet, has been revived in a better form by Tufnell, who has met with great success. Perhaps the use from time to time of a perfectly non-nitrogenous diet, in addition to rest, might aid in lessening the force of the heart, and therefore increasing the tendency to coagulation in the sac.

The mode in which I gave the non-nitrogenous diet was as follows:—Butter was melted in a jug placed in a water-bath, and the liquid oil was poured off. Arrowroot cakes were made with a portion of this butter, and a little sugar was added. A good cook can thus make very agreeable cakes, which should not be in the least tough. These arrowroot cakes were eaten by my patients with great relish when buttered; they also took arrowroot jelly sweetened.

The healthy men on whom I experimented ate as much of this food as they liked; they took on an average ten ounces of arrowroot, six ounces of sugar, and two ounces and one-third of butter, in each twenty-four hours. This quite satisfied hunger, and maintained weight; and all four men on whom I made these trials liked this diet, and felt perfectly well on it. The longest time I kept a man on it was five days, and he did a hard day's work on the fifth day.

If it is wished to add a little nitrogen to suit a diet, but not to give meat or bread, it is best done by substituting

ground rice for some of the arrowroot and sugar; one ounce of rice contains three grains and a half of nitrogen. If more nitrogen is desired, then it may be given in the form of eggs (yolk and white); an egg of two ounces in weight contains nine grains and one-third of nitrogen.

The influence of this diet of arrowroot and butter oil on the free acidity of the urine is very interesting. It shows us that something still remains to be solved, even after the important observations of Bence Jones, William Roberts, and J. Vogel. It is clear that the free acidity of the urine is unconnected with the changes in the body of the starchy and oleaginous aliments. The lactic acid formed by the one does not, we know, appear in the urine, and the fatty acids coming from the other appear also to have no effect.

Some part in the diminution of the urinary acidity must be attributed to the absence of the phosphates which enter so largely into the meat, milk, and cereal diets, and which, by their peculiar properties, play so large a part in giving acidity to the urine. Could the want of chloride of sodium have had any effect in this way? Of this I am not clear, but as the hydrochloric acid of the gastric juice is no doubt derived from common salt, and as in this diet there must be a great lessening in the amount of hydrochloric acid poured out in the stomach, I am disposed to think the rapid disappearance of irritable gastric dyspepsia may be in part connected with the want of salt in the diet.

The absence of the nitrogenous aliment would necessarily check the formation of uric and hippuric acids, and thus also lessen the acidity of the urine. Whether the absence of the phosphates (which, passing in neutral, pass out acid) and the non-formation of uric and hippuric acids will explain all the diminution in the free acidity of the urine, or whether other acids are ordinarily formed in the metamorphoses of the nitrogenous tissues, which are not formed on a non-nitrogenous diet, is a point on which it is at present hazardous to express an opinion.

*(To be concluded.)*

## DESCRIPTION OF A CATHETER URETHROTOME WITH CONDUCTING BOUGIE.

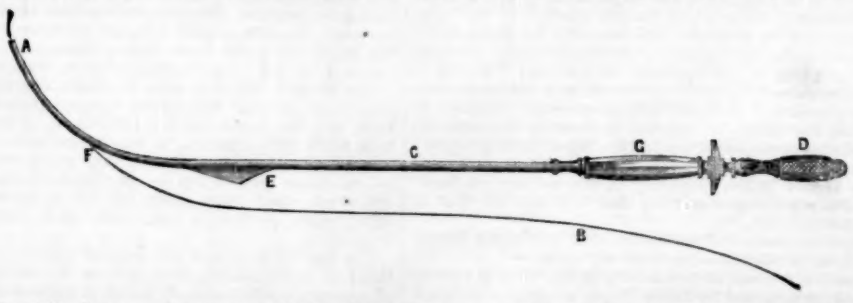
BY W. F. TEEVAN, B.A., F.R.C.S.,

SURGEON TO THE WEST LONDON HOSPITAL, SURGEON TO ST. PETER'S HOSPITAL, AND LATE LECTURER ON ANATOMY AT THE WESTMINSTER HOSPITAL.

OF the countless number of urethrotomes which have been invented, but few remain in use at the present day, and even to the majority of the survivors exception must be taken, as they are wanting in two important particulars. Firstly, when passed up the urethra they do not proclaim their situation; they go somewhere, it is true, but the locality may be the rectum, false sac, or bladder.* A distinguished surgeon performed urethrotomy to his entire satisfaction, passed a large instrument after the operation, and left the patient progressing most satisfactorily. But a short time had elapsed when the surgeon was surprised to see his patient driving up to his house, and on inquiring the object of his visit, he ascertained, to his chagrin, that the patient had come to demonstrate to him that he had performed recto-urethrotomy. Then, again, most of the urethrotomes are so large at their vesical extremity that they cannot be used unless the urethra have previously been dilated up to a certain calibre. This remark especially applies to those urethrotomes that divide from behind forwards. For a urethrotome to be a safe and efficient instrument for the division of tight strictures in the deeper portion of the urethra, it must possess two important qualities. Firstly, its vesical extremity must be so fine that it can be introduced through very tight strictures. It consequently follows that the urethrotome must be one which divides from before backwards; for if the stricture be capacious enough to permit an instrument to pass which cuts from behind forwards, the indication for any operation is doubtful, for if we have dilated the urethra up to half its natural calibre, why should we not persevere with the treatment which has been so successful, and that, too, in the worst and most troublesome stage of the complaint? What we want is to save time in certain cases where patients have, for instance, to go to sea suddenly, and where time does not permit of a course of treatment by gradual dilatation. We therefore require a urethrotome which is capable of setting to work immediately the smallest bougie has been passed. Secondly, it must proclaim its position unmistakably. Now, most urethrotomes lack one or other of the above essentials. Of those instruments which divide from before backwards, two stand out prominently—i.e., the urethrotome which was invented by M. Bonnet, of Lyons, and the one which bears M. Maisonneuve's name. Of the first one it may be said that it lacked the first quality which I have indicated as necessary, but possessed the second one, whereas the converse might be stated of the second urethrotome.*

Five years ago a great advance was made in the construction of the urethrotome by Professor Gouley, of New York, who *tunneled the vesical end of his instrument, so that it could be slid over and along the finest bougie already passed.* So far as I can ascertain, no English surgeon had ever heard of such a thing as a tunneled catheter or urethrotome until it was sent to him from the other side of the Atlantic, and I consider that Professor Gouley's invention marked an era in the surgery of the urinary organs. He, for instance, has converted that dumb and consequently unsafe instrument which is called "Syme's staff" into *a conductor which tells the surgeon where it has gone to*, so that external urethrotomy can now be performed with a certainty hitherto unattainable, and also extended to desperate cases which were formerly beyond its reach.

In THE LANCET for July 5th, 1873, I gave a description of a catheter with a conducting bougie founded on Professor Gouley's principle, but differing in some respects from his; and I shortly afterwards conceived the idea of adapting the vesical third of the instrument to the urethrotome, in order to endow it with safety and a more extended sphere of usefulness. The instrument is composed of a very slender olivary whalebone† bougie (see woodcut, B), not so large as a No. 4, which is first of all introduced, or wriggled




I would rather say, into the bladder apparently, when the catheter (A C) with a handle (G) is slid over and along the bougie (B), which emerges from the catheter through the slit which extends from the handle to the point (F). If the

* My remarks apply to strictures in the deep part of the urethra; almost any urethrotome will do for operation on the penile portion, where, however, I prefer subcutaneous section.

* The objection could be obviated by arming M. Maisonneuve's urethrotome with an accurately fitting stylet.

† A filiform bougie will often pass where the whalebone will fail.

bougie have been passed successfully into the bladder, urine will of course flow from the end of the catheter; but if it should not do so, the catheter may yet be in the bladder, for the slit may have permitted some blood or mucus to block up the tube, and it is therefore necessary to pass the bougie through the whole length of the catheter to clear its interior. When it has been proved that the instrument is in the bladder, the knife (E D) may be slid along the catheter firmly and slowly, and the stricture divided. The apex of the blade is blunt, so that it will usually keep the wall of the urethra away from the anterior side of the triangular knife, which is the only edge that cuts; whereas Maisonneuve's blade cuts going in and coming out, thus giving rise to M. Civiale's objection that the former surgeon's urethrotome "promenaded" the urethra, cutting here and there. If the surgeon consider that the urethra upon which he is about to operate will resent the introduction of the knife and embrace it tightly, it is well then to sheathe the cutting edge with some wax, so as to protect the healthy urethra; or, what is still better, to adapt Mr. Donald Napier's recommendation as to the use of cacao-butter.* It would thus appear that the instrument I have described realises two great desiderata—safety and an extensive sphere of usefulness. Inasmuch as the vesical extremity of the catheter tapers to the size of No. 1, English, there are but few strictures to which it is not applicable; and as the surgeon does not use the knife till he has *proved* that the catheter is in the bladder, it will prevent a repetition of such *petits désagréments* as promenades into a false passage or the rectum.

Portman-square.

ON THE

# SUBCUTANEOUS INJECTION OF MERCURY.

BY CHARLES J. CULLINGWORTH, M.R.C.S. &c.,
SURGEON TO ST. MARY'S HOSPITAL, MANCHESTER.

(*Concluded from page* 688.)

I FOUND the albuminous solution of Staub very prone to deteriorate. Its preparation, too, is rendered troublesome by the repeated filtration required to ensure its being perfectly clear; and even when this has been accomplished flocculi are visible in a few hours, and in the course of a day or two there is a considerable deposit. When the solution becomes flocculent, the injections are a little more painful. The agitation of the fluid in carrying it from place to place appears to hasten this change.

The constant occurrence of persistent induration led me to doubt the correctness of Dr. Staub's theory, and this, taken together with the liability of the solution to change, induced me to institute a few comparative experiments as to the local effects of some other solutions.

I took, in the first place, a solution corresponding to that advocated by Dr. Staub, except that the white of egg was omitted; and I took for comparison with this a simple solution of three grains of corrosive sublimate in an ounce of water. With each of these I made fifty injections, distributed amongst ten patients, comparing the results upon the same individual by using the solutions alternately. One

COMPARATIVE EXPERIMENT I.

| No. | Age. | Bodily condition. | Injection of solution "R": 10 min. in right buttock. | Number of injections. | Result: induration. | Injection of solution "L": 10 min. in left buttock. | Number of injections. | Result: induration. |
|---|---|---|---|---|---|---|---|---|
| | | | 1873. | | | 1873. | | |
| 1 | 19 | Stout ... | Oct. 31st; Nov. 2nd, 8th, 10th, 13th, 14th | 6 | Slight ... | Nov. 4th, 6th, 11th, 12th ... | 4 | Slight ... |
| 2 | 21 | Thin and ill | Oct. 31st; Nov. 2nd, 8th, 10th (gums tender on 10th) | 4 | Slight ... (ecchymosis) | Nov. 4th, 6th ... ... ... | 2 | Very slight (ecchymosis) |
| 3 | 18 | Stout ... | Oct. 31st; Nov. 2nd, 8th, 10th, 13th, 14th | 6 | Slight ... | Nov. 4th, 6th, 11th, 12th ... | 4 | Very slight |
| 4 | 41 | Thin ... | " " " | 6 | Very slight | " " " | 4 | " " |
| 5 | 20 | Well nourished | Nov. 4th, 6th, 11th, 12th... | 4 | Scarcely any | Oct. 31st; Nov. 2nd, 8th, 10th, 13th, 14th | 6 | " " |
| 6 | 20 | " | " " " | 4 | Very slight | " " " | 6 | " " |
| 7 | 21 | Stout ... | Nov. 4th, 6th, 11th, 12th, 18th | 5 | Scarcely any | " " " | 6 | " " |
| 8 | 26 | Well nourished | " " " | 5 | Very slight | " " " | 6 | " " |
| 9 | 17 | " | " " " | 5 | " " | " " " | 6 | " " |
| 10 | 20 | Stout ... | " " " | 5 | Slight ... | " " " | 6 | Slight ... |
| | | | | 50 | | | 50 | |

3 complained of no pain.
1 " equal pain on both sides.
5 " a little more pain on the left than the right.
1 " " " " " right than the left.

solution, marked "R," was always given on the right side; and the other, marked "L," always on the left. I could thus compare, at any time and with the greatest accuracy, the amount of thickening caused by the two preparations. I was surprised to find that both of them caused less pain and less induration than was the case with Staub's solution. The simple aqueous solution of the sublimate gave rise to a little more pain than the alkaline solution; and the amount of thickening, always slight, was about the same for each.

I conclude, from this series of one hundred injections, that the addition of the white of egg, a distinguishing feature in Staub's solution, is practically useless; while, on the other hand, the presence of small quantities of the alkaline chlorides has the beneficial effect of slightly diminishing the pain of the operation.

I now undertook another series of experiments, upon an equal number of patients, with two solutions marked respectively "D" and "S." The former of these was always injected on the right side, the latter always on the left. Solution "D" contained the double iodide of mercury and sodium, prepared according to the directions of M. Bouilhon. Solution "S" consisted of three grains of the bicyanide of mercury dissolved in water, to which a little glycerine had been added. I am not aware that this salt has been previously used for subcutaneous injection. It occurred to me that it would be less irritating to the tissues than other

* With M. Vollemier's guard to the blade no injury is possible.

preparations of mercury.* The results in this series were even more satisfactory than in the former. With both solutions the subsequent thickening was either entirely absent or exceedingly trivial, and in this respect there seemed to be scarcely any difference between the two. In the matter of pain, however, the patients were nearly unanimous in giving the preference to the bicyanide, which caused them little or none. With this solution, therefore, the local effects are reduced to absolute insignificance, and I have no hesitation in recommending it for further trial.† It is very easily prepared, and is not liable to deteriorate, which are additional advantages.

I have been chiefly anxious in this communication to decide two points: firstly, the practicability of the subcutaneous injection of mercury, which I think my researches have established beyond all doubt; and, secondly, the best form of solution, which, after numerous comparative experiments, I have already indicated.

The larger question of the ultimate value of this mode of treatment cannot be really settled except by observations extending over a series of years. All I shall attempt at present will be simply to enumerate what appear to me to be its special and unquestionable advantages. They are these:—

1. The certainty and rapidity with which the symptoms disappear.
2. The small quantity of mercury necessary.
3. Exactness in the measurement of the dose.
4. Impossibility of disappointment through patients neglecting to take their medicine, &c.
5. Absence of gastric and intestinal irritation.
6. Economy in hospital use.
7. The avoidance of the publicity involved in using baths.
8. The means it affords of rapidly affecting the system in certain grave complications.

I here submit to the profession what I believe to be the first systematic account of the subcutaneous injection of mercury attempted by an English surgeon, and I hope that some of my brethren of greater ability and with a larger field of observation than I can lay claim to will be induced to put this mode of treatment to the proof, and to give us broader data for pronouncing a final judgment on its value.

Manchester.

COMPARATIVE EXPERIMENT II.

| No. | Age. | Bodily condition. | Injection of solution "D": 10 min. in right buttock. | Number of injections. | Result: induration. | Injection of solution "S": 10 min. in left buttock. | Number of injections. | Result: induration. |
|---|---|---|---|---|---|---|---|---|
| | | | 1873. | | | 1873. | | |
| 1 | 20 | Well nourished | Nov. 13th, 14th, 17th, 18th, 21st, 22nd | 6 | Very slight | Nov. 15th, 16th, 19th, 20th, 23rd | 5 | Very slight |
| 2 | 18 | „ | „ „ „ | 6 | Scarcely any | „ „ „ | 5 | Scarcely any |
| 3 | 24 | „ | Nov. 13th, 15th, 17th, 18th, 21st | 5 | „ „ | Nov. 14th, 16th, 19th, 20th, 22nd, 23rd | 6 | „ „ |
| 4 | 39 | „ | Nov. 15th, 16th, 19th, 20th, 23rd | 5 | Very slight | Nov. 13th, 14th, 17th, 18th, 21st, 22nd | 6 | Very slight |
| 5 | 26 | „ | „ „ „ | 5 | None ... | „ „ „ | 6 | None ... |
| 6 | 18 | Stout ... | „ „ „ | 5 | Slight ... | „ „ „ | 6 | „ ... |
| 7 | 20 | Well nourished | „ „ „ | 5 | Very slight | Nov. 14th, 17th, 18th, 21st, 22nd | 5 | „ ... |
| 8 | 22 | „ | „ „ „ | 5 | A trace ... | Nov. 13th, 14th, 17th, 18th, 21st, 22nd | 6 | A trace ... |
| 9 | 21 | „ | „ „ „ | 5 | Very slight | Nov. 14th, 17th, 18th, 21st, 22nd | 5 | Very slight |
| 10 | 17 | „ | „ „ „ | 5 | „ „ | „ „ „ | 5 | None ... |
| | | | | 52 | | | 55 | |

2 complained of a little pain on both sides.
8 „ „ „ right and less on left.

* Forty years ago (Journ. de Chim. Méd., tom. viii., 1832, p. 473) M. Parent-Duchatelet strongly advised the use of the bicyanide in preference to the bichloride, and chiefly on the following grounds—viz.: (1) that it gave rise to no pain at the epigastrium; (2) that it did not become so easily decomposed; and (3) that it underwent no change when mixed with alkalies or the principal vegetable decoctions. It does not appear to have remained long in favour. It was described on all hands as a dangerous remedy, apparently on simple theoretical grounds, and very soon became all but obsolete. I see, however, that it has found a new advocate in Dr. Tilbury Fox in the new edition of his work on Skin Diseases.

† The following is the formula: Hydrarg. bicyanidi, gr. 12; glycerinæ pur., ʒiv.; aq. dest. ad ʒiv. Medium dose, ten drops (containing 1-16th gr.) to be injected into the outer aspect of the upper arm, or, better still, between the spine and the lower angle of the shoulder-blade, every morning, or as often as required.

# A Mirror OF HOSPITAL PRACTICE,

## BRITISH AND FOREIGN.

Nulla autem est alia pro certo nos endi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## CHARING-CROSS HOSPITAL.

### CASES OF MALIGNANT ONYCHIA TREATED WITH NITRATE OF LEAD.

(Under the care of Mr. FAIRLIE CLARKE.)

THREE cases of onychia maligna have lately presented themselves at the above hospital, which have all been treated with nitrate of lead, according to the suggestion of Mr. MacCormac.

The first patient was a traveller, aged forty-one, who had malignant onychia of the right little toe. The disease was of ten or eleven weeks' standing. The toe was much enlarged and clubbed, the nail was almost entirely gone, and there was an ulcerated surface the size of a threepenny-piece. There was severe pain, not merely in the seat of disease but also in the ankle; and as the patient was obliged by his occupation to be constantly on his feet, it was a very serious inconvenience to him. He came to the hospital on Dec. 12th, 1873. The nitrate of lead was dusted on the ulcer, and he was told to apply it in a similar way every night and morning. He abstained from work for a week, and rested at home, so that he gave himself every chance. On the 19th the following note was made:—"The toe is easier than it has been for a long time past. There is now a hard dry scab on the spot which was before raw and ulcerated." The patient continued to attend the hos-

pital for a week or two longer, the onychia meanwhile slowly improving, and then he was lost sight of. After the lapse of four months he was met walking briskly along the street, following his ordinary occupation. He said that the nitrate had "effected a perfect cure." He had used nothing else, except "a lotion of herbs," and he had got speedily well.

The second case was that of a pale, flabby little boy, aged three years and a half, who was brought on Jan. 20th, 1874, with malignant onychia of the right thumb. The disease began a month before he came to the hospital, and took its origin from jamming the thumb in a cab door. The thumb had a very characteristic appearance, being enlarged through its whole extent, and clubbed at the point. The nail was ragged and misshapen, and the ulcerated surface around it bled freely. The patient was ordered steel wine, and nitrate of lead was dusted upon the sore night and morning. It was said at first that the application gave great pain, so that the child screamed violently; and probably it was not applied regularly. Still the ulceration improved. At a subsequent visit the mother said that the application was less painful, and she asserted that it was regularly used. The case was steadily improving during the three or four weeks that he attended, but afterwards the child was attacked by the measles, and did not visit the hospital. The nitrate was, however, beneficial in this case, and would doubtless have effected a cure if it had had a fair chance.

The third case was that of a married woman, aged thirty-seven, who applied at the hospital on Feb. 3rd, 1874. She was suckling at the time, and was rather weak. The malignant onychia had originated in the prick of a hair-pin two months before. When first seen the right thumb was red, swollen, and clubbed. There was a large, ragged ulceration; the nail had perished; and the last phalanx was necrosed, and was separating. She was ordered to take quinine mixture, and to apply the nitrate of lead twice a day. It gave her very trifling pain, and seemed to produce an immediate amendment. In a few days the last phalanx came away. As there was a good deal of pain in the thumb, poultices were applied over the nitrate. She went on steadily improving, without a drawback, and in six weeks the disease was cured, the thumb remaining of course somewhat misshapen in consequence of the loss of the last phalanx.

On the whole, having regard to the severity of onychia maligna, and the great difficulty of treating it successfully by the ordinary lotions or ointments, Mr. Fairlie Clarke is inclined to think that the remedy to which Mr. MacCormac has drawn attention is a very valuable one.

## THE HOSPITAL FOR WOMEN, SOHO SQUARE.

### CASES OF OVARIOTOMY.

THE following is a continuation of the report of the ovariotomy cases performed at the above-mentioned hospital during the past year:—

CASE 4. *Multilocular cyst; recovery.*—Harriet A——, aged twenty-six, married six years, was admitted April 18th, under the care of Dr. Meadows. Has had three children (last child seven months ago) and one miscarriage. Catamenia have not appeared since confinement; previously regular. Menstruation painful and scanty. First noticed the abdomen large after last confinement, when there was a swelling on the right side, which has gradually increased since.

On admission, the abdomen was found enlarged, the girth at the umbilicus being thirty-four inches. There was a globular swelling reaching to the ensiform cartilage, dull all over, and fluctuation very distinctly felt; flanks resonant. In the left iliac fossa, and extending into the left loin, was felt a hard mass, which moved on moving the rest of the tumour. Per vaginam: uterus normal; uterine sound in normal direction three inches. No tumour felt in pelvis.

On the 26th April Dr. Meadows performed ovariotomy. The cyst was found to be connected with the right ovary, and contained five pints of green gelatinous fluid; walls very thin. There were no adhesions, except a band from the omentum. The pedicle was of fair length, and about the size of two fingers. It was clamped, and divided with the cautery, as also the band of adhesions from omentum, and both dropped in. The abdomen was then well mopped out, the wound brought together with deep silk sutures, dressed with lint dipped in carbolic oil, covered with oil-silk, and supported with broad strips of plaster, an abdominal belt being placed over all.

The patient made a good recovery, and was discharged cured on the twenty-fourth day.

CASE 5. *Multilocular cyst; peritonitis; death on the seventh day.*—Mary L——, aged forty, married twenty-one years, was admitted April 28th, under Dr. Meadows. Has had four children (last fifteen years ago) and two miscarriages. Catamenia regular up till eighteen months ago; since irregular and painful. First noticed abdomen swollen eighteen months ago; since then has gradually increased.

On admission, abdomen enlarged, dull all over except in flanks; distinctly fluctuating, and measuring at umbilicus 37 in. in girth. Per vaginam, uterus somewhat drawn up; uterine sound passes 2½ in. On deep pressure to the left of the uterus the tumour can be distinctly felt, and fluctuation can be made out by external palpation.

On the 3rd of May Dr. Meadows performed ovariotomy. The cyst was found to be connected with left ovary; contained thirteen pints of brownish-green fluid, and was free from adhesions. The pedicle, however, was very thick and short. It was securely tied with strong whipcord, the cyst cut away, and the pedicle dropped into the abdomen. The abdominal cavity was then well sponged out, the wound brought together with deep silk sutures, dressed with lint soaked in carbolic oil, supported with broad strips of plaster, and an abdominal bandage placed over all.

Patient did well for the first four days, when the abdomen became distended and painful; sickness came on, and she died on the evening of the seventh day.

At the post-mortem examination the intestines were found matted together, and there was general peritonitis. The pedicle and its vicinity were specially the seats of inflammatory action.

CASE 6. *Multilocular ovarian cyst; recovery.*—Alice C——, aged thirty-nine, married eight months, was admitted under the care of Dr. Heywood Smith on May 6th. The patient was never pregnant, catamenia always regular, menstruation at times painful. First noticed the abdomen to be enlarged ten months ago, and since then it had gradually increased.

On admission, the abdomen was occupied by a soft, elastic, indistinctly fluctuating swelling, reaching about three inches above umbilicus, and dull on percussion. The flanks were resonant on percussion, as well as the upper fourth of the abdomen per vaginam. The uterus was found pushed backwards, and to the right, by a soft elastic swelling situated in front of it. On palpation externally fluctuation was felt. Uterine sound measured three inches and a half.

On May 10th Dr. Heywood Smith performed ovariotomy. The cyst was found to be connected with the left ovary, was multilocular, and contained six pints of thick, gelatinous fluid, and was free from adhesions. The pedicle, of fair length and rather small, was clamped, and divided with the cautery. The abdomen was then mopped out, the wound brought together with deep carbolised silk sutures, dressed with Lister's oil silk and lac plaster, and supported with broad strips of plaster, with an abdominal belt placed over all.

The patient made an excellent recovery, and was discharged cured on the twentieth day after the operation.

## ROYAL FREE HOSPITAL.

### CANCER OF THE DESCENDING COLON; INTESTINAL OCCLUSION; PERITONITIS; DEATH.

(Under the care of Dr. COCKLE.)

THE following case, for the notes of which we are indebted to Mr. H. W. Saunders, M.B., F.R.C.S., resident medical officer, presents some points of practical interest. The symptoms were those of chronic obstruction in some part of the large intestine, and the indication was, if possible, to make a regional diagnosis of the obstruction, in order to decide on the advisability of operative interference. The question of operation turned entirely on the determination of the seat of the stricture in the bowel. Unaided by the light of the post-mortem examination, it must be

confessed that there were few localising signs. Could the exact site of the tumour have been diagnosed, it is evident that, *quoad hoc*, colotomy would have offered a prospect of at least temporary relief. An operation was, however, decided against by those who examined the case before death.

Sarah B——, aged sixty-nine, admitted March 10th, suffering from obstruction of the bowels. On admission the patient was a very thin but healthy-looking woman, the mother of eight children, the youngest of whom is aged thirty-eight. After the last confinement there was illness, with fever and pains in the abdomen, lasting six weeks. From this she recovered perfectly, and had not suffered since from any notable abdominal symptoms. Before her present illness there had never been any difficulty in defecation or any discharge from the anus. She states that the motions had never been decreased in calibre. There was no history of cancer in the family.

The history of her present illness can only be very imperfectly obtained, the statements of the patient and her friends being at variance on some points, and not very intelligible. She appears to have been in her usual health until a fortnight before admission, when the bowels became confined, and shortly afterwards a swelling in the abdomen was noticed, which she stated was localised a little to the left of the umbilicus. Vomiting soon set in. The patient had no medical attendance until a week had elapsed, and then it appears enemata and purgatives, followed by opium, were administered. Her friends stated that there had not been at any time any fæcal vomiting. She had not emaciated very markedly, but was always very thin.

On admission, she was suffering acute pain; the expression was anxious, and the manner very querulous; the pulse feeble and intermittent; tongue coated in the centre with thick yellow fur. The abdomen was very much and uniformly swollen and tender; hyper-resonant all over, except in the left iliac region, where the tone was flatter. The patient fixed the site of obstruction "close to the bladder." There was slight glandular swelling in the left groin; great meteorism; no flatus passed by the anus. On inspection, the greatly distended bowel could be seen often twisting and writhing and changing position. There was not much borborygmus. On exploration, the rectum was found empty, and apparently free from obstruction; but a long tube could be passed only about four inches. No blood or mucus had passed per rectum. Vomiting was infrequent, and consisted of mucous matters and food only. Some food was retained. There was dysuria and scanty high-coloured urine.

On the 11th a diagnosis was made of obstruction in the large intestine; but there was nothing to point to the nature and exact site of obstruction, except, as to the latter, the patient's own sensations, which proved to be well founded at the autopsy.

From this date until the death of the patient on the 16th March there was little variation in the symptoms. Vomiting was slight and infrequent, and never stercoraceous. Fluid food was taken fairly well. The abdomen became still more tense and tender; the distress was not extreme until a day or two before death. The highest temperature recorded was 99° F.

The treatment consisted in the exhibition of belladonna, and two days later of the aqueous extract of aloes in half-grain doses every hour. Subcutaneous injections of morphia were administered at night. On the 13th, galvanism to the abdomen was ordered twice daily. Eggs, milk, and brandy were given in small quantities frequently, and on the 15th enemata of the same, which were not, however, retained.

The question of operative interference was decided against for the following reasons: the extreme probability of existing peritonitis at the time of admission, the long preceding duration of the obstruction, the age of the patient, and the difficulty of diagnosing the site of the disease.

The much-distended bowel was punctured on three occasions at several spots with a fine trocar and canula, a good deal of fæcal-smelling flatus escaping, followed by temporary relief.

*Post-mortem examination.*—Body greatly emaciated. (At the request of the friends the abdominal organs only were examined.) On opening the abdomen recent lymph was seen to be thrown out in great quantity, matting together the small intestines. The large gut was free from recent adhesions, but there were numerous old peritoneal adhesions binding down especially the cæcum and descending colon. There was but little fluid effused. The bowels were enormously distended and packed even up to the duodenum with semi-fluid fæces. There were no traces of the punctures made before death. At the sigmoid flexure was a sudden narrowing of the gut to about half its calibre, with some evident thickening. On opening the bowel there was seen, exactly at the sigmoid bend of the colon, a cauliflower-like mass springing from the wall of the bowel and completely occluding it. The mass measured about one inch and a half in each direction, was tolerably firm, and of villous, flocculent appearance. There was no trace of ulceration either in it or in the neighbouring part of the gut. Below it the rectum was empty and somewhat narrowed. The walls of the bowel above and below the growth appeared quite healthy and without evident thickening. The other abdominal viscera were healthy.

*Microscopical examination.*—The great bulk of the growth was seen in sections to be made up of enlargement and proliferation of the tubular glands, which grew outwards on the free surface in the form of branched villous-like processes; the glands maintained their calibre, and many of them contained transparent and granular material, probably mucus; the lining columnar cells were very large. The interstitial connective tissue was strewn in many places with small round lymphoid cells, like those normally found in this situation. The growth, therefore, belonged to the class of gland or "adenoid cancers," and probably in reality was a variety of epithelioma.

## ROYAL UNITED HOSPITAL, BATH.

### SUDDEN CESSATION OF CHOREA AFTER TREATMENT BY CHLORAL HYDRATE.

(Under the care of DR. COLE.)

THE nature of the essential cause of chorea and the most effectual mode of treatment are yet vexed questions in medical pathology and therapeutics. Its frequent association with heart disease, its common occurrence after rheumatism, its mode of onset, and the evidence that has been afforded by some post-mortem examinations, have favoured the so-called embolic theory of the cause of chorea. It must not, however, be forgotten that this explanation entirely fails in a large number of cases. One of the main difficulties in determining the anatomical cause of chorea is, of course, the rare occurrence of death in this disease. Even when the opportunity of making post-mortem investigations arises, it not unfrequently happens that the chief and the most imposing lesions are those due to the supervention of intercurrent disease. In the estimation of the effects of remedies in this affection it is, moreover, of great importance to avoid the logical fallacy of *post hoc ergo propter hoc*. Many drugs of directly opposite action have been vaunted as specifics in the treatment of this disease. But, whatever may be the immediate beneficial effect of the administration of a remedy, the natural tendency towards spontaneous cure should not be overlooked. This, however, should be no argument for the adoption of the *laisser faire* mode of procedure. The action of remedies should always be noted, and, when satisfactory, persevered in, and duly accredited.

For the notes of the following case we are indebted to Mr. Walter A. E. Waller, house-physician.

A. L——, aged seventeen, single, servant, was admitted December 29th, 1873. This patient had been attending at the hospital for about a month previous to admission, on account of anæmia and irregular menstruation.

For about fourteen days previous to admission, she had noticed slight movement in the left side of face, which, in the last week, had become much worse, and extended to whole of left side of body. She had not had chorea before. There was no history of rheumatism, and the present attack is attributed to a fright occasioned by someone entering her room after she had gone to bed.

On admission she was well nourished. The whole face, with the exception of a bilateral malar flush, was anæmic, and the gums were blanched. The left arm and leg were in a state of constant and considerable movement; so much so that the clothes required frequent readjustment. The left eyebrow was corrugated; the tongue, which was thickly coated

with fur, was protruded firmly and straight. She could talk well. There was a systolic bruit at base of heart; second sound accentuated; also a much louder systolic bruit at apex, heard also behind. Loud hum in veins of neck; apex beat natural. Ordered to take a mixture containing fifteen drops of the solution of perchloride of iron with five drops of hydrochloric solution of arsenic three times a day, and twenty grains of chloral hydrate at night.

Dec. 30th.—The temperature last night was 99° F., and this morning 97·6°; pulse 108. She slept about two hours and a half after the draught, and was quite quiet when asleep. Movements continue as bad as yesterday. Bowels thoroughly open.—Evening: Twenty grains of chloral hydrate taken at 10 P.M., and ten grains at midnight.

31st.—Slept for half an hour after midnight, not otherwise. A good deal of talking delirium.—Evening: One grain of opium pill at 9 P.M.; twenty grains of chloral hydrate at midnight.

Jan. 1st.—Slept for twenty minutes about 5 A.M. Movements increase, but are still unilateral; perspires profusely. Continue the arsenic.—Evening: Took two drachms of tincture of hyoscyamus.

2nd.—No sleep. Pulse 132. The dose of arsenic was increased to eight minims. She is in some ways apparently wilfully mischievous, getting up in bed and turning the gas on and off. (She is in a room by herself, and can reach the gas from the bed.) The movements are so bad as to make it a matter of difficulty to keep her in bed.

5th.—She has continued in much the same state; no sleep has been procured by morphia injections or extract of belladonna, or two doses of chloral given at three hours' interval. In Dr. Cole's absence Mr. Waller ordered her to take twenty grains of chloral every three hours, and to continue the arsenic. All the sleep that is hitherto credited to her since admission is four hours and twenty minutes.

6th.—Pulse 84. She began to sleep about 10 P.M. last evening, after having taken four doses of chloral, and has slept well on and off the whole night. Is now quite still. Ordered to continue the arsenic, but to omit the chloral.—Evening: Has been quite quiet all day. Is to take one twenty-grain dose of chloral at 9 P.M.

7th.—Has slept well all night; does not move unnaturally at all; can hold the left hand up in the air and keep it quite still in that position.

11th.—Since the sleep on the night of 5th inst. there have been absolutely no choreic movements. The arsenic mixture has been continued, but no chloral used since the evening dose on the 6th. She was up to tea yesterday.

29th.—Left the hospital well, having been detained latterly on account of her anæmic condition. There is no venous hum in neck and no bruit at base, though the systolic apex bruit remains much the same.

# Medical Societies.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 12TH, 1874.

DR. C. J. B. WILLIAMS, F.R.S., PRESIDENT, IN THE CHAIR.

### NOTES OF TWO CASES OF HÆMORRHAGIC DIATHESIS.

BY CHARLES HIGGENS, F.R.C.S.,

ASSISTANT OPHTHALMIC SURGEON TO GUY'S HOSPITAL, AND SURGEON TO THE CENTRAL LONDON OPHTHALMIC HOSPITAL.

THE cases were reported of two brothers the subjects of hæmophilia. The family history furnished a good illustration of the mode of transmission of the disease from the maternal grandfather through his daughter, who was not a bleeder, to five males of a family consisting of seven boys and one girl—the girl, as is the rule, being one of the exceptions. It also appeared that hæmophilia, although often fatal, does not of necessity shorten life, as the grandfather above mentioned lived to the age of eighty-six and died of old age. Another point of interest was the firmness with which the blood coagulated; in each of the cases reported well-formed clots were produced, showing that the hæmorrhage was not due to want of coagulability.

The PRESIDENT thought that if a chemical analysis of the blood was made it might throw some light upon the affection.

Mr. SEDGWICK said that early observations tended to prove there was no difference of structure of the small blood-vessels. In three published observations thinning of the arterial walls was met with. German observers said it was not due to structural peculiarities of the vessels. He thought it would be well to examine the vessels in case of death. The study of the family history would show that the vessels, not the blood, were at fault. There was a tendency to outgrow the affection after a certain age.

Dr. WICKHAM LEGG said that the chief feature in the natural history of the disease was its hereditary character. A singular case had been lately brought under his notice, where the hæmorrhagic tendency could be traced back in the family as far as 1740; in the same village there were many families in which the boys bled from the bowels or the kidneys. The blood had been analysed in Germany, but it was not found to differ from the normal standard. He believed the affection depended upon some change in the bloodvessels.

### ON SEPTIC DISEASE, IN AND OUT OF HOSPITAL.

BY RICHARD BARWELL, F.R.C.S.,

SURGEON TO CHARING-CROSS HOSPITAL.

The subject of the death-rate in hospitals having of late years, and especially during the commencement of the present year, attracted much attention, the author was induced to re-examine hospital reports, comparing them especially with Simpson's statistics in his celebrated papers on Hospitalism. Sir James ranges together hospitals of similar sizes, adds their death-rates, and draws the conclusion that the mortality increases with the number of beds. By taking each hospital separately (adhering to Simpson's numbers) and arranging them according to their mortality, Mr. Barwell formed a table of those with 50, 40, and 30 per cent. of deaths, and so on; and by this table it appears that in each class there are hospitals of every dimension—in the highest class some of the smaller, in the lower classes some of the larger: hence he concludes—"That the size of a hospital has no influence on its mortality."

In studying the Registrar-General's returns in different towns and districts, the author found that the death-rate from erysipelas (the only septic disease in this table) varies with the density of the population in a ratio sufficiently close to warrant the conclusion that the one has an intimate relation to the other. The mortality after amputations (as given by Simpson) is then compared with the erysipelas death-rate of the district in which the hospital is situated. With certain palpable exceptions, accounted for by the condition of the institutions, the comparison shows a striking proportion between the two sets of numbers: hence "The mortality of a hospital varies remarkably with the erysipelas death-rate of its neighbourhood."

The general outcome of these comparisons appears to be that overcrowding, ill-ventilation, and other defects will produce a high death-rate from septic disease out of hospital; and since hospitals in towns are filled by the class thus rendered receptive of septic influence, there will in hospitals of large towns be a higher death-rate than in villages. But if the hospital itself be not overcrowded, ill-ventilated, &c., this death-rate will be proportional to that outside, or below that proportion; therefore "hospitalism does not exist," if the term be taken to mean an evil influence necessary to hospitals and inherent in their very nature, whether ill or well arranged.

The author then gave the statistics for some few years past of the Charing-cross Hospital. During this period a considerable number of grave operations were performed, including herniotomy, lithotomy, amputations of hip, excisions of large joints, &c.; and Mr. Barwell preferred giving these statistics altogether, instead of confining himself to amputations. The low rate of mortality—viz., 29 per cent.—he attributed to certain hospital arrangements, as well as to excellent and cleanly nursing; but he also strongly insisted on the necessity of careful watchfulness, especially on the value of thermometric observations, on the desirability of changing the bed when a rise in temperature sufficient to forewarn occurred, and also on the value of large doses of quinine under like circumstances.

In conclusion he deprecated the word "hospitalism" and the idea it conveys, as causing surgeons to acquiesce in a large death-rate as inseparable from hospital practice.

Mr. HOLMES said there was great difficulty in using

Simpson's figures, as nothing precise was attached to them. The tables gave the statistics of operations in various hospitals, each with varying rates of mortality. Thus Middlesex Hospital was put down as 70 per cent., and Canterbury as 5 per cent. If two men with a like injury were operated upon, one at each hospital, it would seem that the one in Middlesex would run about fifteen times the risk of the one at Canterbury, which was preposterous, and carried its own refutation. Sir James Simpson gave no details or explanations of the cases collected, and so different things and under different conditions were compared. Mr. Barwell had raised the question of septic disease in hospitals, but Simpson said nothing about that. When Simpson compared the rate of mortality of two hospitals, and fixed one at 5 per cent., the class of amputations performed was omitted, for such a rate of mortality in metropolitan hospitals was impossible, on account of the injuries for which operations were performed. If, in a case of compound fracture high up in the thigh, the patient was allowed to die rather than swell statistics, as had been recommended, and if all patients not likely to recover were left to die without aid, the statistics were lowered, but the condition of the patients was not improved. The statement that an operation performed in a dirty cottage would do as well as in a good hospital was absurd. One had only to look at hospital out-patients to see how the cases admitted did better than those outside. The test of salubrity was rarely dwelt on; the large plastic operations required a rapid union, and usually these operations were performed with success. This would not be the case if the hospital was the seat of erysipelas and septic disease. He would not assent to any percentage of septic disease being inevitable. By the more careful treatment of wounds and greater attention to the arrangements of the patients, septic disease was much lowered.

Mr. SPENCER WELLS said that Simpson collected facts and brought them under the notice of the profession; he did not think he should be attacked because he showed the evil. He thought his facts had had a most important result. More attention had been paid to the salubrity of hospitals lately, and the patient was put in a good position after operation, and attention paid to the dressings, &c. He thought Mr. Barwell's statements as to "urbism" could only be considered in reference to the same city. Mr. Barwell had said that ovariotomy should not be performed in hospitals in which pyæmia and erysipelas were present; he would say that no large operation should be performed there under such circumstances.

Dr. DRYSDALE said he had seen bad results from the overcrowding of patients in hospitals, and thought that hospitalism was a fact.

Mr. HUTCHINSON said that whilst sympathising with Mr. Holmes as to the way in which Simpson used his statistics, yet we owed a debt of gratitude to him for what he had done; he had diminished the rate of mortality during the last few years. Simpson, he thought, was right in the main, though his statistics were fallacious. He thought the term hospitalism was applicable to a large amount of mortality in hospitals, and due to the conditions of the hospital alone. He did not believe that it always depended upon the size of the hospital. He was at Dover lately, and on going into the hospital found there was an epidemic of erysipelas; there it did not depend upon the size, but upon exposure to contagion. If, as must be admitted, the mortality after ovariotomy was great in hospitals where all operations were performed and students attended, as compared with the results in special hospitals and in private cases, then it was necessary to allow there is something in connexion with the hospital; and since it was so, why not apply the same rules for other operations as for ovariotomy. He thought there was a large amount of preventable disease, and much might be prevented if attention was directed in the way Simpson indicated. He would like to have heard what Mr. Barwell meant by septic disease, what it included, and how it attacked the patient; how gonorrhœal rheumatism and pyæmia were classified. Till that was known no conclusion could be arrived at.

Dr. FAYRER wished to say a few words on hospitalism. In the Medical Hospital at Calcutta, in 1859, an amputation of the thigh was never known to have recovered. The hospital was badly ventilated, and had been a temple; pyæmia abounded. In 37 large amputations 18 died of pyæmia, and in 61 amputations of leg, 18 died of pyæmia, &c. In 226 operations of every kind, 53 died of pyæmia. A great improvement followed alterations, better ventilation, and fewer patients to a ward. All this mortality was not due entirely to hospital arrangement, but he believed that hospitalism was one of the causes.

Mr. BARWELL said that no one denied that the aggregation of patients caused disease, but must there be more disease in hospital from pyæmia than in separate cases? He did not believe there ought. No hospital was yet perfected, but the best means of construction and ventilation should be adopted to prevent these diseases. It should not be concluded, because ovariotomy did not succeed in general hospitals, that therefore amputations were more deadly, since opening the abdominal cavity was a different thing from amputation. He thought the term "hospitalism" should be forgotten, and that the idea of a rate of mortality as a necessary consequence of hospitalism should be abandoned.

## CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 10TH, 1874.

MR. PRESCOTT HEWETT, PRESIDENT, IN THE CHAIR.

MR. CALLENDER read notes of

### TWO CASES OF NEURALGIA.

In the first, the affection, which involved a stump, seemed to be due to neuritis connected with symptoms of spinal cord irritation; and in the second case, the affection of the nerves, giving rise to persistent pain and defective nutrition, was entirely peripheral, and was due to the irritation set up by the entanglement of branches of the ulnar and median nerves in the thickened tissue, resulting from diffused suppuration in the hand. No evidence existed of spinal irritation; and, as the trouble seemed to be dissociated from any central cause, amputation of parts of the hand was resorted to, for the purpose of removing the indurated tissues which compressed the nerves. By this procedure the patient was relieved of his pain, and retained the thumb and index and middle fingers of the hand.

Mr. HENRY LEE quoted particulars of the case of a young woman who had come under his care for a stiffness of the elbow-joint. The joint was opened, the arm was amputated, and, as the pain still continued, the nerves were cut, and eventually the bone of the arm was removed. The muscles of the spine became subsequently affected.

Dr. BUZZARD said that he had treated a case of neuritis of the brachial plexus in which, although the affected arm was blue and cold to the touch, the thermometer in the axilla of that side was found by repeated careful observations to mark a temperature 1° Fahr. above that of the other. He suggested that a comparison of the temperature might sometimes prove useful in diagnosing neuritic pain from that dependent upon hysteria.

Dr. Myers and Mr. Barwell also joined in the discussion.

Mr. WARRINGTON HAWARD read notes of a case of

### RECURRENT TUMOUR OF THE BREAST.

A woman, aged sixty-four, had had a tumour removed from the right breast in 1860. It recurred in 1863, and was again removed. In 1867 another large tumour formed, and the whole breast was removed. In the beginning of 1873 a tumour appeared at the outer end of the scar of the last operation, grew to a large size, and ulcerated. The patient was then admitted into St. George's Hospital, and as much of the tumour as was possible removed by Mr. Rouse; but it could not be extirpated, owing to the implication of the chest-wall in the disease. The patient died, and after death the tumour was found to have invaded the intercostal muscles, and projected slightly into the pleural cavity, pushing the parietal pleura before it. The contents of the axilla were natural, and no other disease was found in the body. The new growth was soft and easily broken down, of a pale-red colour, interspersed with irregular areas of yellow and rusty-brown colour. Microscopically, it had all the characters of a myeloid tumour.

After some brief remarks by Mr. Pick,

Mr. TREVAN related four cases of

### STERILITY AFTER LITHOTOMY.

1. A hall-keeper, aged forty-four, was cut by the lateral operation at a provincial hospital twenty years ago. He

married three years afterwards; but his wife, although his junior, had never had a child or a miscarriage. The patient stated that he had no emissions during connexion. 2. A painter, aged forty-seven, married when thirty-one years old. Lateral lithotomy was performed on him three years afterwards. His wife bore him two children before, but none subsequently to the operation. He had quite lost the faculty of emission during coitus. 3. A shoemaker, aged forty-five, was cut by the lateral method when two years old. He married when twenty-five, but his wife, although his junior, had had no child or miscarriage. The patient had no emissions during connexion. 4. A shipwright, aged forty-five, had lateral lithotomy performed on him when four years old. He was married when twenty-three, his wife being his junior. She had borne him no family. He had no emission during coitus. The cause of sterility was very clear; for lithotomy, as usually performed, involved a laceration of the floor of the prostatic urethra and obliteration of the orifices of the ejaculatory ducts. Sometimes the prostate split in the roof, and the infirmity was obviated.

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FRIDAY, APRIL 25TH, 1874.

Dr. ANSTIE read for Mrs. GARRETT-ANDERSON notes of a case of

CANCER OF THE TRANSVERSE COLON,

producing sphacelus of the walls of the abdomen. The patient was a woman aged sixty-eight, and presented, on first being seen by Mrs. Anderson at the Women's Hospital, December 9th, no distinctive signs of malignant disease. A slightly movable lump, which existed on the right of the navel, was quite painless; and it was at first hoped that it might be mere fæcal accumulation. Purgatives at first diminished the swelling, and seemed to make it softer. Thirteen days after her first visit, however, some pain came on, and she was taken into the hospital the next day. By this time sphacelus of the skin had already commenced, and it was evident that there was a communication between the bowel and the surface. The treatment consisted of opium and brandy, given by the mouth, and disinfectant poultices applied to the sphacelated part. The woman sank and died on December 30th, or twenty-one days from her first being seen, and one week after admission to the hospital. Post-mortem examination showed that the malignant disease of the transverse colon was primary, and that there was no cancerous disease in any other part of the body. The bowel became adherent to the abdominal wall, and a perforation took place, through which fæcal matter passed into the muscular and subcutaneous cellular tissue, causing general cellulitis and sphacelus of a large portion of the skin of the abdomen. A ring of cancerous tissue almost occluded the bowel and caused fæcal accumulation above; through this ring slow perforation had taken place, with inflammatory adhesion to, and subsequent perforation of, the successive tissues of the abdominal wall. It was an interesting fact that the colon had been diagonally twisted by the results of old omental adhesions, due to an omental hernia.

Dr. ANSTIE mentioned particulars of another case, in which it was at first doubtful whether an abdominal tumour consisted of an accumulation of fæces or a solid growth, which in time proved to be a mass of malignant disease.

The President, Dr. Powell, and Dr. Fitzpatrick took part in the discussion.

Papers were also read by Mr. Henry Lee, on a case of Traumatic Stricture of the Trachea; by Dr. Morell Mackenzie, on the Treatment of Cystic and Fibro-cystic Bronchocele; and by Dr. Althaus, on Paralysis of the Radial Nerve, caused by an unusual amount of Lead-poisoning.

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DEVONSHIRE MEDICAL BENEVOLENT SOCIETY.—The members of this Society held their business meeting in the board-room at the County Hospital last week. The affairs of the Society are in a prosperous state, the treasurer's report showing a balance in hand of £122 1s. 8d. During the past year one member had died, two had withdrawn, and four new members have been received, leaving the total number fifty-nine. The president and other officers for the year ensuing were elected, and it was decided to hold the next meeting at Plymouth. A *soirée* was held in the evening.

# Reviews and Notices of Books.

*Clinical Aspects of Syphilitic Nervous Affections.* By THOMAS BUZZARD, M.D., F.R.C.P., Physician to the National Hospital for the Paralysed and Epileptic. London: J. and A. Churchill. 1874.

IT is not altogether pleasant to reflect on the fact that men who devote themselves to special branches of medicine, and go more deeply than others into the study of the diseases of one or other of the great departments of the body, come back to us with the discovery that syphilis plays a large, though often an overlooked, part in the production of familiar forms of disease. When a shrewd dermatologist encounters an obstinate and incurable case of skin disease, he bethinks himself of the possibility of a syphilitic element in it, and very often the thought is the key to the cure. Of late, physicians who take a special interest in neuroses and their treatment have discovered that a syphilitic element lurks in many of their cases, and affords a clue to treatment more satisfactory than is generally realised in similar cases minus the syphilitic element. It is gratifying to know that our own physicians have not been behind their continental brethren in regard to this important piece of pathology and therapeutics. It is superfluous here to mention the work of Dr. Wilks, Dr. Hughlings Jackson, and others. As our readers will remember, a series of papers upon this subject was published by Dr. Buzzard in the columns of this journal twelve months ago. The book now under notice is an expansion of those papers, embodying the result of large opportunities of clinical observation. The references to this subject in our text-books on general medicine convey, it is certain, an extremely imperfect idea of the number of instances in which the gravest possible lesions of the nervous system are dependent upon a syphilitic basis which has not been suspected and therefore not treated. The explanation of this frequent mistake in diagnosis is clear enough. Certain affections of the skin, throat, eyes, and periosteum have come to be widely recognised as manifestations of constitutional syphilis, and, from their being frequent evidences of this disease, have got to be looked upon by very many as necessary marks of it. So that, for example, the fact of no skin eruption having ever occurred in a certain patient would serve to negative at once in the mind of his medical attendant any idea that the epileptic seizures from which he was suffering could be of syphilitic origin. The teaching, however, of the work before us, if we do not mistake the author's meaning, is that a ptosis of the eyelid, or some other form of paralysis, or a cramp or convulsion, may be, under certain circumstances, just as certainly the evidence of constitutional syphilis as a patch of lepra or a periosteal node. In fact, Dr. Buzzard would appear to believe that the time has arrived when we must reckon certain neuroses, marked by peculiarities which he illustrates in considerable detail, as sequelæ of syphilis quite as characteristic in their way as the more notorious affections of the mucous surfaces, and not at all necessitating the presence of these latter to prove their relationship. The importance of this point is evident enough, and whether or not the author is right in his view, the fact cannot be doubted that cases of curable nerve disorder are drifting every day into a hopeless condition because the patient, according to his attendant, "never had a spot upon his skin," and *therefore* cannot possibly have an epilepsy or a strabismus which a little mercury or iodide would cure. Our busiest consultees could, there is no doubt, give us some very startling information upon the frequency of such cases as these.

Up to this time there has been no book in English putting in concise and consecutive form our present know-

ledge on this subject, clinical, pathological, and therapeutical. Dr. Buzzard has happily succeeded in writing such a book. He admits that for the Pathological chapter he is much indebted to Virchow, Zeissl, and Lancereaux, and this chapter is not the least valuable part of the volume. But the chapters on Diagnosis, Prognosis, and Treatment are characteristic of the author. We would especially notice the chapter on Diagnosis, which will be a valuable help to the practitioner in distinguishing neuroses with a syphilitic element from others. The important evidence which the ophthalmoscope is capable of affording in aid of the diagnosis of these cases is described very clearly and simply, and the help given by the results of electrical tests is also well stated. Practitioners have shrunk too much from attempting to avail themselves of these aids to diagnosis, from a notion of their extreme complexity. Not the least of the value belonging to Dr. Buzzard's book depends upon the success with which he dispels this idea. The thoroughly clinical character of the book may be gathered from the fact that, although consisting of only 141 pages, it contains well-drawn records of nearly forty cases. Every practitioner must have met with such cases as are here related. As we write a case presents itself of an inveterate neuralgia of the sciatic region, in a young married lady, first of the left side, then of the right, which had resisted all kinds of anti-neuralgic treatment at the hands of different practitioners, shattering and laming the patient for months, till the occurrence of a perforating ulcer of the soft palate—according to Dr. Buzzard a tertiary symptom—suggested the root of the disease and the use of iodide, which dispersed the symptoms and the malaise as if by magic. The book is rich in illustrations of similar results.

What Sir Benj. Brodie would have said to Dr. Buzzard's doses of iodide of potassium—a medicine which the great baronet used to think productive of insanity—we cannot imagine; but it occurs to us, in rising from the study of Dr. Buzzard's book, that the effects attributed by Sir Benjamin to the iodide were sometimes due to syphilis and to the fact that the remedy had not been pushed far enough to get the full remedial effects. Dr. Buzzard, describing the effects of this medicine, says—

"There is something quite remarkable in the influence of the iodide of potassium in cases of this class. The drug seems to act almost as a food to the patient. It is not only that he finds, under its employment, that the special nervous symptoms for which it is prescribed are beneficially influenced, but he describes a condition of *bien être* as accompanying its use which makes him unwilling to give it up. I know of nothing in all therapeutics more extraordinary than the rapid effects of iodide in improving the condition of patients, except it be perhaps the influence of lemon-juice in scurvy."

Of course Dr. Buzzard does not limit himself to the iodide, but associates occasionally mercury and other remedies with it. The brilliant results of treatment in this class of cases will lead to disappointment if the treatment be applied to other cases than those for which it is meant. This mistake will not be made by those who carefully study the points on which the diagnosis turns, and which are stated with great lucidity by Dr. Buzzard, whose book we consider one of the most useful that has recently appeared. It revives one's faith in medicine as a practical art.

## OUR LIBRARY TABLE.

*Dhow Chasing in Zanzibar Waters and on the Eastern Coast of Africa.* By Captain G. L. SULIVAN, R.N. 8vo, pp. 453. Sampson Low and Co. 1873.—The epidemiologist, as well as the general reader, has been fortunate in the publication of this work. Captain Sulivan's story of the slave-trade on the East Coast of Africa, and of the vessels in which that trade is carried on, is one to be read and re-read. But the work, apart from the peculiar interest attaching to its subject, has a special interest for us. It throws a flood of light upon native trade movements on the East African Coast and in the Mozambique Channel. What Captain Colomb (in a book already noticed in THE LANCET) has more particularly done in enlightening us as to trade movements on the Arabian Coast, Captain Sulivan does with regard to the East African and Mozambique Coast. Before the publication of these works, the general public were practically in the dark as to the native trade on the East African and South Arabian Coast. Recent events, not only in the slave-trade, but also in the movements of cholera (a question coming closely home to us), have made the kind of knowledge which Captain Sulivan and Captain Colomb supply very necessary.

*Greek Lessons:* showing how useful and how easy it is for everyone to learn Greek. By W. H. MORRIS. Third Edition. London: Longmans, Green, and Co. 1874.—Greek has three important uses—first, as a key to scientific English—a department of our tongue which is daily on the increase; second, as an educational instrument, being "the most subtle and powerful language that ever flowed from the lips of man" (Dean Alford); and, third, as the language of the New Testament. It is, moreover, an easy language; but hitherto it has been taught in the most cumbrous, not to say repulsive fashion. Mr. Morris is an excellent scholar and a skilful teacher; and in this little book of some ninety-six pages he has given the essentials of the language in a form so clear, so comprehensive, and so memorable, that the intelligent scholar might master it in three months. He might then proceed to the New Testament, and, by steady gradations, ascend to the less familiar classics, till his knowledge of Greek would be sufficiently sound and handy for all practical purposes. Mr. Morris's book, we may add, has met the approval of some of the best scholars and teachers of the day.

*Oreades and other Poems in Latin Verse.* By JOHN LLOYD, Esq. London: Longmans, Green, and Co. 1874.—The writing of Latin verse, like playing on the pianoforte, is one of the fine arts, in which excellence is attained only by the few. Boys are still taught the one and girls the other, even when mediocrity alone is attainable, on the principle, we presume, that, to parody the laureate's lines, 'tis better to have tried and failed, than never to have tried at all. Doubtless the boy will appreciate the Latin poets and the girl the great musical composers with all the more delicacy for the discipline they have respectively gone through. Mr. Lloyd, we take it, has not learned Latin verse at any of our public schools; if he had, he would have avoided such enormities as "chartâ stylusque"; "nec morâ, scribe mihi" (p. 15). "Hygeïa," moreover (p. 10), is an impossible word, and so is "exema" (p. 15). But he is by no means wanting in poetic feeling, as the first poem, "Oreades," with all its stiffness, attests.

*Gas Purification in London;* including a Complete Solution of the Sulphur Question. By R. H. PATTERSON, Member of the Statistical Society of London and of the Society of Political Economy of Paris, author of the "Economy of Capital," the "Science of Finance," &c. &c. Edinburgh and London: William Blackwood and Sons. 1874.—Mr. Patterson has laid the gas consumer under considerable obligations. His process of purifying gas entirely by means of the ammonia contained in it was at once ingenious, effective, and economical. The treatise before us examines the whole question of the gas purification of London in detail, and, as a contribution to the final settlement of the "sulphur question," is worthy of its author's well-known powers of painstaking research and lucid exposition.

THE LANCET.

LONDON: SATURDAY, MAY 23, 1874.

IN bringing forward his motion on Vivisection at the meeting of Convocation of the University of London, and in asking the governing body of that University to forbid at the Brown Institution all experiments on animals which involve pain, Mr. HUTTON made the first attempt to give practical effect to the principles he has advocated with so much earnestness and vigour. In doing this he urged that the experiments in question involved a breach of trust, of law, and of principle. Much of his argument, as well as of the singularly able and eloquent speech of Mr. FARRER HERSCHELL, turned on the verbal interpretation of Mr. BROWN'S will and of an Act of Parliament; but the abstract merits and demerits of the question of vivisection lay so near the surface as to crop up in each part of the discussion. So far as concerned the trust, the precise language of the will and the letter from Dr. BURDON-SANDERSON made the question a simple one. Mr. BROWN distinctly contemplated, as one object of the institution which his bequest was to found, "the promotion of science"—that is, we suppose, the science of animal pathology and therapeutics, perhaps also that of animal physiology. The will contained no provision against the subjection of diseases to experimental study—to which, indeed, one clause appeared definitely to refer. It contained no provision against the infliction on animals of pain in the pursuit of the ends contemplated—namely, the increase of our knowledge of and power over disease, and the consequent diminution in the sum total of animal suffering. Indeed, so clear from the language of the will was Mr. BROWN'S intention, that the objections urged were based upon another ground—that the experimental study of disease had been for the benefit, not of animals, but of humanity. This idea may have arisen from the more precise terms of human pathology having been employed to describe the results of the investigations, and from some of those results having been laid before the Pathological and other Societies. But it was forgotten that human and comparative pathology are but parts of one whole—are, indeed, in essential feature and extent identical; and that no new light can be thrown upon one which does not also illuminate the other. Every experiment on an animal which explains some point in human pathology has a bearing on animal disease—it may be less obvious, but not less precise.

From the letter which was read from Dr. BURDON-SANDERSON, it appeared that none of the few "physiological" experiments which have been done at the Brown Institution have been carried out in the laboratory of the institution. By this we understand that, although performed within its walls, they have in no sense constituted part of the work of the place, and so were beyond the jurisdiction of the University. Indeed, the chief experiments referred to—those of Dr. FERRIER,—in so far as they were for purposes of investigation and not of illustration, might surely have formed part of the institution, for they throw important light on the canine maladies of epilepsy and chorea.

The interpretation of the Act of Parliament on which Mr. HUTTON relied is a point of great importance, since we suppose that the next step of the opponents of animal experimentation will be to test by an actual prosecution the legality of the practice. The precise words of the Act are—"if anyone shall cruelly beat, ill-treat, over-drive, or torture"; and Mr. HUTTON argued that the word "torture" must be taken in its isolated, absolute sense; while Mr. HERSCHELL urged that it and the other words were all governed by the adverb which preceded them, and which introduces into their interpretation the question of motive. The words of the Act cannot certainly be commended for their precision; but if the adverb qualifies more than the first word, it qualifies them all; and no one, we imagine, would deny that there are circumstances under which a horse might be over-driven, even to death, without crime. If for this, then for the others the qualification of motive must be admitted; if there may be a justifiable over-driving, there may be a justifiable torture; and the subject of justification involves the whole abstract question under discussion. Mr. HUTTON further asked the University to withdraw its countenance from what he termed, by a somewhat strained use of words, "the creed of a belief in vivisection"—to do this by disavowing and forbidding any painful experiments on animals, whatever good might be in prospect to other animals by such experiments. In doing this Mr. HUTTON surely forgot that he was asking for subscription to a creed much more definite and much less generally received than that which underlies the practice to which he objected. Some principles of action a University must have; and if every graduate is to demand the disavowal of those principles of action to which he may object, a *reductio ad absurdum* would soon be reached.

We are far from regretting the discussion on the subject of vivisection which has taken place both in and out of the University of London. It will diffuse among the public more accurate ideas of the true nature and objects of the experiments on animals which are included under, and somewhat unfairly stigmatised by, that epithet. It may keep alive in those who perform the experiments a keen sense of responsibility to limit them to the necessary minimum in number and severity. That in the investigation of science and in scientific teaching needless experiments have been made no one can deny. Could any practicable means be devised for regulating the number of experiments and the conditions under which they might be performed, we should be the first to welcome it. To attempt to check experimentation by criminal prosecution would probably fail, or, succeeding, would press with extreme injustice on investigators, and check disastrously the scientific study of life and of disease. To limit the experiments to those which involve no conscious suffering would be to forbid many which are the most important and have results of the most immediate value. To prescribe the persons by whom, and the places where, such experiments might be performed would be probably impracticable and useless.

It will, we believe, be found that the only effective means of regulating the practice is the formation of a sound and influential public opinion which shall recognise at once the true nature, the necessity, and the evil of animal experimentation, and which will tend more than any other means to influence investigators and teachers to limit painful experiments to the cases in which the probable good largely preponderates over the certain evil. To the formation of such an opinion the late discussion of the subject will have contributed in no small degree.

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THERE is sufficient evidence in the columns of the daily press of the prevalence of rabies among dogs and other animals in many parts of the country. The fact was known to professional observers some months ago; but the notices which appeared in the medical and veterinary journals excited little attention beyond the limited space over which they would naturally extend, and it was not until some more than usually painful cases of the disease came under the observation of newspaper correspondents that the public mind awoke to the magnitude and reality of the danger. Now the utterly ineffectual measures which are possible under the provisions of that useless piece of legislation, the Dogs Act of 1871, are being carried into effect, at least to some extent. Placards have been posted in the metropolis warning persons who own dogs that they are liable to a penalty of £5 if they allow their dogs to go at large, after they have been bitten by a rabid dog or are suspected to have been bitten. The police have been ordered to destroy all such dogs, and to enforce the penalty against the owners. How the police are to know whether or not the dogs which overrun our streets have been bitten, and how they are to find their owners, are points which are left to the discretion of the force. It is also stated that the police have been directed to seize all dogs, whether muzzled or unmuzzled, which are not under the control of some person. This order, of which we have not seen any official notification, is more to the purpose. A further announcement is to the effect that the Commissioners of Police have directed the inspectors at the various stations to report on the subject of mad dogs, and to state if they deem it advisable that all dogs during the "dog days" should be muzzled. We have only to remark, in reference to the latter suggestion, that it amounts to an anachronism. Dated a few centuries back the fiction about the "dog days" might pass muster. In the present day the allusion betrays entire ignorance of the laws which govern the spread of rabies, and evidences the complete incapacity of those who hold such views to deal with a matter which so seriously affects the public health. On the Continent these things are differently managed. Hydrophobia is reported to be prevalent in Vienna; and accordingly a conference of veterinary surgeons is to be held to consider the means of prevention. Among the questions which they will be called on to decide, that of the destruction of all dogs found in the streets will be most prominent.

If, instead of communicating with the inspectors of police, the local authority had communicated with the Veterinary Department and the officers of the Veterinary College and requested advice in the emergency, it is at least probable that some practical measures of prevention might have been suggested, although no reference might have been made to the "dog days."

Among the means of prevention of the spread of rabies, and therefore of hydrophobia, we place first the discouragement of the breeding of useless dogs. Direct legislation on this point is out of the question; but a rigid system of licensing and the compulsory use of numbered collars would do much towards diminishing the number of vagrant animals, which, after all, do the greatest amount of mischief when an outbreak of rabies occurs. The absence of the collar would be accepted as evidence, under ordinary circumstances, that the dog was without an owner; and it should be a standing order to the police to seize or destroy such animals at all seasons, "dog days" included. If it were possible to make it fashionable to deal with dogs as we deal with horses—that is, to emasculate all which are not required for sporting or stud purposes—the results would be most satisfactory; but it is quite vain to hope for the general adoption of this radical measure at present.

In the category of effective means of prevention which cannot be enforced we must place M. BOURELL'S proposition to render dogs harmless by cutting off and filing down their incisors and canines. M. BOULEY lately introduced this subject to the French Academy of Sciences, and referred to successful experiments which had been conducted by the originator of the idea. Rabid dogs whose teeth had been filed down were allowed to attack healthy animals, but failed to wound them, and no communication of the disease occurred; the human hand protected by a glove was also presented to them, but they did not succeed in puncturing the covering or injuring the epidermis. The author of the scheme claims that its general adoption would extirpate hydrophobia by rendering it impossible for rabid dogs to communicate the poison to other animals or to man; but he despairs of seeing the system generally accepted, on account of the sentimental feelings with which owners of dogs regard their pets.

The use of the muzzle as a preventive of hydrophobia is advocated by some and loudly condemned by others. The chief argument against it is the admitted fact that dogs do not wear the muzzle when at home, and therefore when the desire to wander seizes them they escape from the dwellings of their owners unmuzzled. This is quite true; but it is also true that, if the universal employment of the muzzle were insisted on, the appearance abroad of an unmuzzled dog would lead to suspicion of the existence of rabies, and occasion the animal's destruction. Undoubtedly the use of the muzzle has proved effectual in controlling the spread of rabies on the continent when all other measures have failed, and, as a simple mode of precaution, it should be vigorously enforced whenever rabies and hydrophobia make their appearance; but the muzzle should be of such a description as to admit of free respiration and exposure of the tongue to the air, otherwise it would be productive of cruel discomfort to the dog during the hot weather. For this purpose the basket-wire muzzle should be substituted for the ordinary strap muzzle so commonly used in this country.

Perhaps the most effective preventive measures are

those which could be easily applied by owners of dogs; assuming, of course, that ownerless dogs will be summarily disposed of. Reasonable watchfulness on the part of every person who has charge of dogs would lead to the observation of premonitory symptoms, and an opportunity would thus be afforded to place the animal under proper supervision and restraint until the extent of the danger could be defined. For days before a dog becomes savagely rabid he manifests certain peculiarities of demeanour, hiding in obscure corners, swallowing indigestible substances, sometimes gazing intently as though watching the movement of some object on the ground, now and then snapping at anything which is presented to him, and altogether behaving with an eccentricity which attracts notice, although it is seldom referred to its cause. After a time the dog is missed suddenly, and never seen again. The owner deplores the loss, and never suspects that the creature, in obedience to a resistless impulse, has rushed away on its mad career; and, if it has escaped the sticks and stones of the excited populace, has at length crawled into some dark place and died. It is not much to ask of owners of dogs that, in the interests of the community, they should remember the possibility, to say the least, of these animals becoming the subjects of a terrible malady, which, being communicated to man, is certain to result in death in the most hideous form; life-long regret will not compensate for a calamity which watchfulness might have prevented.

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IN December last the Birmingham and Midland Branch of the British Medical Association appointed a Committee to consider the subject of Medical Education. The Committee seems to have discharged its duties with considerable thoroughness; for it presented to the Branch at its general meeting on the 9th of April a report containing the general views of the Committee on Medical Education, and a scheme for embodying its particular views as to the nature of the Preliminary and Professional Examinations by which the education of the student should be tested. We have been favoured with a copy of this report, and propose to give our readers an outline of its general purport. It will be understood that the Committee had in contemplation the education of the general practitioner as distinguished from the case of the more ambitious student who aims at degrees or honours in medicine and surgery.

The Committee considered the question of apprenticeship, and well points out both its advantages and disadvantages. The Committee considers the revival of apprenticeship unadvisable; but suggests instead that the student should spend the first year of his professional course as the private pupil of a general practitioner "that he may become familiar with the methods and details of private practice, and acquire a knowledge of its every-day working." Next, the Committee expresses itself with great frankness in favour of abolishing compulsory attendance on systematic courses of lectures, retaining only certain courses of a practical character. It would leave the student, not absolutely free as to the choice of teachers, but free to select as a teacher anyone who may be registered as such at any recognised hospital, infirmary, or school of medicine. The Committee recommends a like freedom as to the methods of teaching. To secure steadiness of study and progress, it would rely, not on prescribed curricula, but on frequent periodical examinations of a thoroughly practical character, at which every student should be required to present himself. The Committee says that the General Medical Council has signally failed to institute an efficient system of visitation of examinations. To supersede the necessity for such visitation it is recommended that all examinations be held in public.

In regard to the examining bodies the Committee is not less explicit. It says:

"Your Committee are of opinion that any plan whatever for a conjoint examination by the examining boards of various corporations or chartered bodies is likely to prove unsatisfactory and injurious to the interests of the medical profession; and they strongly recommend to the Branch the advisability of urging upon the Legislature the institution of State examinations. They think the State examinations should be totally independent of all the universities, medical corporations, and licensing bodies; and that every person should be obliged to pass the prescribed State examinations before being allowed to have his name enrolled on the Medical Register."

The Committee is of opinion that the fees to be paid by candidates for examination ought to be as small in amount as possible. Before anyone can be registered as a medical student, he must pass a preliminary general examination, and what is called in the scheme the Preliminary Scientific Examination.

We do not know to what extent this report will be accepted even by the Midland Branch of the British Medical Association. The discussion of it stands adjourned to the next special meeting. The Committee is doubtless well aware that its proposals are in advance of anything which has hitherto had the sanction of the Medical Reform Committee of the Association. There is undoubtedly much in the report to call forth criticism, but its main proposals are entitled to far more consideration than they are at present likely to receive. It is gratifying to us, who have long since given up hope of getting any satisfactory examining arrangements out of the struggle for life or for power of nineteen rival bodies, to see indications that the British Medical Association is waking up to the vanity of expecting anything from Conjoint Schemes. The proposals of the Midland Branch go further than our own in 1871, and further than we should go now. Our desire is, and our proposal was, to see an efficient and uncostly examining board in each division of the kingdom, appointed by a General Medical Council—not by the State directly, as the Midland Branch suggests, nor by the corporations and universities acting in their individual character. But though we to a great extent take the same view of this question as the Midland Branch, we cannot agree with it in thinking that there would be any practical utility in moving the Association to appeal to the Legislature at present. We have a Conservative Government, and medical authorities which are much more conservative than the Government. It is probable that the Reform Committee of the British Medical Association is as conservative as either the Government or the corporations. Under these circumstances, though we should be glad to see the report, with some modifications, adopted by the Branch,

we are prepared to have to await the trial of Conjoint Schemes. Nothing but an experiment and palpable failure will satisfy the bodies interested, or convince the Government that it is impossible to perpetuate a system which was meant for past generations, and was absurd and unjust even for them. As regards the question of a limited pupilage, and the leaving students freer to get their knowledge how and where they please, we agree in principle entirely with the Committee.

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MOST of our readers have at some time or other glanced over the advertisement columns of the daily journals, and have seen, among the many comforts and attractions offered to those going to India, Australia, New Zealand, and the Cape, a long list of "experienced surgeons" ready at a moment's notice during the voyage. We do not care to canvass the special merits or shortcomings of those of our cloth who elect to go down to the sea in ships and occupy themselves on the great waters; but we know as a fact that since the first ship advertisement appeared the travelling and the initiated public have chosen to regard this "experience" as a misnomer, a delusion, and a snare. The ship doctor has commonly been considered as the ruck of the profession, whose capacities lay much more in the direction of brandy-and-water than the healing of the sick. But ocean travelling and the number of mercantile medical officers have increased during the past ten years very considerably, and, as we know, emigration from this country now assumes gigantic proportions. Hence, whether popular opinion, as indicated above, be just or unjust, it is proper that the public should know whether any official standard has been established such as will ensure to oceanic travellers of all classes, as well as to emigrants, that medical wants afloat will be properly and efficiently supplied.

It may or may not be generally known that at the beginning of last year the Board of Trade assumed, by a special Act of Parliament, all duties and responsibilities connected with emigration, and, in fact, now perform the work of the Emigration Office. The Passenger Acts of 1855 and 1863 (which comprise the laws relating to emigration at present in force) contain sections reciting that every "passenger ship" must carry a "duly qualified medical practitioner" when there are more than fifty passengers on board, and when the voyage exceeds eighty days for a sailing-vessel and forty-five days for a steam-ship, and also in any case when the total number on board (including cabin passengers, officers, and crew) exceeds three hundred persons. The term "duly qualified" is explained clearly enough in Section 36 of the Medical Act of 1858, which recites that no person can hold any appointment in the Military or Naval Service, or in *emigrant* or *other* vessels, or in any hospital, parish, union, &c., ..... unless possessing certain qualifications expressed in Schedule A of the Act. We need not describe the contents of this schedule, but have only to point out the responsibilities that devolve upon the Board of Trade in seeing that, as a minimum qualification, these provisions of the Passengers Act are carried out, not only as regards emigrant ships, but also as regards all British and colonial vessels that bear a surgeon on their articles. Is this done, and done systematically? The law demands that it should be done as fully and as faithfully as in the case of army and navy surgeons or Poor-law medical officers, and, in fact, of all other naval, military, and civil officers in the service of the Crown, or those who are directly or indirectly subject to Imperial legislation. It must be remembered that, according to statistics published last year, no less than 295,213 emigrants left the United Kingdom in 1872 in steam and sailing ships; and these statistics alone show how much medical officers are responsible for afloat. Indeed, it is no insult to the sister services to say that, under ordinary circumstances, the duties of a surgeon in charge of an emigrant ship with 500 or 600 persons of all classes, ages, and nationalities on board, are, for the time being, of a far more important and responsible nature than those of a medical officer in charge of a regiment or a Queen's ship. And hence, as we infer, it is one of the chief duties of the Board of Trade to take care that those sections of the Passengers Act above referred to are carried out in their integrity. There are other sanitary aspects of emigration to which we shall presently have occasion to refer; but undoubted evidence exists that there are now many "experienced" surgeons afloat whose names cannot be found either in the Medical Register or in the books of any examining body in the United Kingdom.

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AT the end of January in the current year we had the pleasure to review a work by Miss FLORENCE S. LEES, called "Handbook for Hospital Sisters," and, a fortnight later, Hospital Training for Ladies received some notice at our hands, *apropos* of a pamphlet on that subject written by the Viscountess STRANGFORD. These and other utterances, the King's College Hospital discussion, the good work done on this score in our late European wars, and an earnest and growing desire to find suitable employment for women of all classes, have combined to direct general attention towards, and to enlist the universal aid and sympathy in, improving the quality of nursing, both in houses and hospitals. Nursing as an art, pure and simple, is an outcome of the reformation that has been gradually taking place in the practice of medicine; for we now know that there are preventive and curative agents other than draughts and pills; that, however good the advice given may be, it must be acted upon fully and faithfully; that the ordinary hygiene of the sick-room, and the ordinary as well as special rules of sick diet, must be carried out by persons of intelligence, tact, and unwearying assiduity; and that, as physicians and surgeons, we look to the nurse for that helping hand in these things, without which all our endeavours will, in the majority of instances, fail to bring about a successful result. We cannot be accused of ultra-enthusiasm on this subject in remarking that the mutual confidence existing between the physician and the nurse cannot be at all appreciated by those who have not had the conduct of difficult professional work; knowing at the same time that, in our absence, all directions given will be watchfully and patiently carried out. We have said thus much on what some may consider an already well-worn subject, in order to introduce to the notice of our readers a Report received from a Committee of the Order of St. John on "Nurses for the Sick Poor."

This Committee, presided over by Sir E. LECHMERE, and including Drs. RUMSEY, SIEVEKING, JULIUS POLLOCK, LONGMORE, and other professional members, commenced work last year by issuing a list of questions relative to the practical training of nurses for home and hospital duty. These questions were sent to forty nursing institutions; the replies of sixteen of these have been tabulated by a sub-committee, and conclusions have been drawn from these replies, which, as we are informed, will be submitted for discussion at a public meeting shortly to be held in order to draw attention to the subject. It is not necessary to give in detail the recommendations of this Committee as embodied in their report, but the main object appears to be to establish a central home, institution, and scheme of registration for skilled nurses, to form a scale of rewards for nurses according to merit and period of service, and to provide pensions for those of their number who have grown old and been invalided. Without professing to discuss in detail the desiderata and the difficulties pertinent to the scheme, we may suggest—(1) the advisability of endeavouring to gain the support of all hospital authorities both in town and country, because nurses, as well as medical students, must have clinical instruction; (2) the amalgamation of existing institutions; and (3) the scrupulous avoidance of all religious or sectarian subjects in the conduct of the proposed establishment. It is almost superfluous to say that, particularly in its infancy, the success of such an institution must very much depend upon the commanding officer in the choice of recruits, and that the choice requires a great amount of tact and discrimination. In spite of much that has been declared to the contrary, we do not believe the raw material from which nurses are manufactured is by any means abundant. There are few callings so laborious, so responsible, or so "risky," and none in which temper is so severely tried. In addressing ourselves to those of the upper and middle classes who are honestly and enthusiastically endeavouring to do so much for the sick poor, it is well to be not only aware of, but thoroughly imbued with the fact that the life of a nurse in the homes of the sick poor must of necessity be one of association with squalid surroundings, rough and uncouth habits, and all varieties of civilised misery, which the nurse may indeed alleviate, but can hardly be expected in her own generation to remove.

# Medical Annotations.

"Ne quid nimis."

## REGISTRATION OF BIRTHS AND DEATHS.

THE second reading of the Registration Acts Amendment Bill was agreed to without opposition, in the House of Commons, last week, Mr. Sclater-Booth's explanatory statement having satisfied Dr. Lyon Playfair that the Bill might safely be allowed to go into committee. In truth, there is no dispute about the principle of the Bill—that it is desirable to make registration compulsory; and differences of opinion as to the way in which this can best be accomplished must depend for their solution upon a critical examination of clauses such as the Commons in committee are wont to enter into *con amore*. Both Mr. Muntz and Dr. Playfair have given notice of amendments designed to remedy the defect of the Bill in regard to the omission of a specific penalty for not giving information to the registrar of the occurrence of a birth or death. Mr. Sclater-Booth's defence of this omission is that it is not desirable to multiply penalties, and he instanced the Vaccination Acts as showing that the indiscreet action of local officers in enforcing cumulative penalties against persons who had a craze on the subject of vaccination had brought these Acts into obloquy. No doubt it would be most unwise so to administer the registration law as to render it harsh and oppressive, but we apprehend that, as a rule, no prosecution would be allowed to take place without the prior sanction of the Registrar-General, who would hardly countenance anything at all likely to bring registration into bad odour with the public.

So far as the registration of births is concerned, the Bill is confined in its operation to children "born *alive*." Mr. Muntz will move the omission of the word "alive," and if he is successful in this, still-births will have to be registered in the same way as live births. There is, undoubtedly, a strong opinion in favour of the registration of still-births, but it could not be done under the same regulations as in the case of children born alive, and therefore Mr. Muntz should embody his motion in the form of a separate clause. Besides, so important a change should hardly be attempted by a side-wind, such as the mere omission of a word, which might escape notice.

As we have previously said, it is intended to require medical practitioners to certify the cause of death of all persons attended in fatal cases of illness by them. But then there are eight or nine thousand persons, exclusive of inquest cases, dying every year without medical attendance, and the registrar is to be left to find out as best he may the cause of death in such cases. Dr. Playfair contends that herein the Bill falls short of what is known to be needed, and he proposes that whenever no medical certificate is forthcoming and no inquest is held, the Poor-law medical officer of the district in which the death occurs shall be required to visit the body, and if he be satisfied that there are no suspicious circumstances attending the death, he is to give a certificate of its cause. Should he consider further inquiry desirable, he is to inform the coroner of the case; and for this additional work of certification "the Poor-law medical officer shall be entitled to such fee as the Local Government Board may prescribe." Whether the Poor-law medical officer, as such, should be required to undertake this duty, or whether it would not be better to assign it to the district medical officer of health, either by himself or by the Poor-law medical officer acting as his deputy for the purpose, may be questioned. But under any circumstances the principle for which Dr. Playfair, by his amendment, contends, will, we trust, be affirmed.

## OUR WATER-SUPPLY.

THE public, or at any rate the rural portion of it, owe thanks to Mr. Bailey Denton for calling attention at intervals to the important subject of water conservation and supply. His recent letter to *The Times* raises points of national importance, for a dearth of water is startling to contemplate, and, as he observes, such a dearth ought never to exist "in a sea-girt island where the minimum rainfall of its driest portions exceeds 18 in. per annum, and 1 in. of rain falling upon a single acre is more than enough to give two persons 30 gallons each of water per diem all the year round." Thanks to the extremely wet winter of 1872–3 the drought of the past three or four months has not as yet caused any general scarcity of water, but Mr. Denton states that in several parts of the country the want of a sufficiency is being felt. From October 1872, to March 1873, the rain-

fall was 21¼ in., whereas in the corresponding period 1873–4, the fall was only 9 in. Small, however, as the fall of last winter was, it is satisfactory to learn on such good authority that still there has been an excess of supply over demand far more than enough, if properly stored, to avert a deficiency of potable waters. But the storage, "there's the rub." Practically, save in the neighbourhood of some large towns where they have systematic water-service, there is no adequate provision made in this country for storing surplus rainfall. And the moral of this neglect is written on the records of our village communities in a waste of health and life, of which only those who have looked into such matters can fairly estimate the amount. Want of a wholesome and plentiful supply of water is the burden of almost every medical report on the sanitary condition of rural districts that passes through our hands; and if such want is to be met, there seems nothing for it but to look to the landowner to supply it, just as he provides, for the most part, the houses in which the people live. Mr. Denton evidently sees hope in the report of Lord Salisbury's Committee on the Improvement of Land which suggests the expediency of extending the power of charging landed estates with the cost of storing and conveying water for sanitary and agricultural purposes. But with the Bengal Famine on his hands, we fear Lord Salisbury will, perforce, have to let this home question, deeply important as it is, stand over for consideration next session.

## THE EAST LONDON HOSPITAL FOR WOMEN AND CHILDREN.

THE first anniversary festival of this deserving hospital was held on Wednesday evening last, at the London Tavern, under the presidency of Mr. S. Whitbread, M.P., who was supported by several gentlemen of influence and position in the East-end. There were present a large number of members of the medical profession, including Dr. Eustace Smith, Mr. Shillitoe, Mr. Reeves, Drs. Corner, Cæsar, &c. This hospital was founded a few years ago in Ratcliff Cross, a district containing as much squalid wretchedness and poverty as any in the metropolis, by a noble-hearted young surgeon named Heckford, whose genial personal qualities no less than his active philanthropy have been depicted in graceful and enduring terms by the kindly pen of Charles Dickens. After spending a large sum of money in buying a site and constructing a suitable building, Mr. Heckford laboured assiduously, without fee or reward, in developing the resources of his new-born hospital, and with an energy and force that soon shattered a system that was never robust, and hurried him to an untimely grave. Since its foundation, 37,000 patients have been treated, and the number of applicants is now so large that the premises are found utterly inadequate to meet the increasing requirements of the institution. The governors have therefore wisely determined to erect a larger and altogether more commodious house, at an estimated expense of £15,000. Towards this sum there has been obtained, including the donations and subscriptions promised on Wednesday, nearly £8000, leaving still a very large balance, which we hope and believe will be forthcoming in due time.

Towards the close of the evening the entertainment was marked by an unusual and painful incident. As toast after toast was proposed and responded to, and no allusion made to the honorary medical staff, it became apparent that the gentlemen forming that body would be left to the last, if not entirely ignored. The staff took umbrage at what they, not without some reason, considered the discourtesy shown them, and when the health of a paid lay official was proposed, they left the room in a body, with the exception of one gentleman, who was not aware of the action of his colleagues. The rules which regulate the order of precedence of minor toasts at entertainments for charitable purposes are of necessity arbitrary, and cannot be reduced to hard and fast lines. In the case to which we have referred, however, there cannot be a doubt that the medical staff had just grounds for feeling aggrieved at their exclusion from the earlier toasts. It is to be hoped that no intentional slight was offered to anyone by the Committee of Governors, but that the omission was purely the result of accident. Either way, an apology is due to the gentlemen who gratuitously give their services to the East London Hospital.

## DESTRUCTION OF INFECTED CLOTHES.

THE absurdity of having one kind of sanitary law in the metropolis and another in the provinces has been recently exemplified at Greenwich in a controversy between the District Board of Works and the Board of Guardians relative to the destruction of infected bedding and clothes belonging to poor persons suffering from typhus fever. The guardians seem to have assumed that the district board, as the sanitary authority, were empowered by law to destroy such infected articles, and either to replace them or to compensate the owners. But the clerk to the district board has pointed out that, under the Sanitary Act of 1866, the board may disinfect, but cannot legally destroy infected clothes, and certainly would not be warranted in expending their funds in replacing clothes so destroyed. On the other hand, the clerk submits that the guardians, in administering parochial medical relief, have the power to supplement that relief with bedding or clothing which they might give in exchange for infected clothes to be then destroyed. Thus the sanitary authority and the destitution authority in a London district have been wrangling over a question which was definitely settled for the whole country *outside the metropolis* by the Public Health Act of 1872. By virtue of the 51st section of that Act, the sanitary authority of any provincial district may cause infected clothing to be destroyed, and are empowered to give compensation for the same. The metropolis was expressly shut out from the operation of this Act; hence the Greenwich difficulty which Mr. Sclater-Booth has announced his intention of meeting by extending to sanitary authorities within the metropolitan area the power given in the 51st section of the Act. We seem never to succeed in getting beyond the experimental stage in law-making, a result clearly indicating that our legislative machinery is less effective as a means to an end than (theoretically at least) it ought to be.

## CLINICAL TEACHING IN GLASGOW UNIVERSITY.

WE learn that the quiet monotony of events in the Medical School of Glasgow has been somewhat broken by the proposal to found in the medical faculty of the University two new chairs—a chair of Clinical Surgery and one of Clinical Medicine. The chairs have originated, if our information be correct, in a peculiar way. Two of the most deservedly popular extra-mural lecturers and clinical teachers, ambitious, we presume, to be connected with the University and the new hospital, offered, or their friends offered, to endow two clinical chairs with £100 a year each in perpetuity, provided that they were appointed the first professors. The Senate accepted the endowments, but struck out the annexed condition. It was, indeed, a mistake to put it into the bond. It detracts visibly and coarsely from the grace of the offer, and it would, in effect, have been quite safe to trust the election, under the circumstances, to the Senate. The institution of the chairs, under these circumstances, has given rise to much animadversion.

And very properly so. It is admitted that the gentlemen, who are virtually the founders, are fitted to adorn the chairs and to do credit to the University. But the transaction has an awkward look of buying the professorships, which, on the part of meritorious men, is especially undignified. In another part of the kingdom the practice of buying hospital appointments is not uncommon; but it is not defensible, and the extension of it in any form cannot be too severely criticised. In Glasgow clinical teaching has been greatly stimulated by being perfectly free. The physicians and hospitals of the Royal Infirmary were some years ago put, in this respect, on a footing of perfect equality. It seems doubtful policy on the part of a University to imperil the advantages of this system by virtually giving to one physician and one surgeon a monopoly of clinical teaching, and we regret that the University should have been instigated to such a narrow course by two teachers who have nothing to fear from free trade in clinical teaching.

## CANCER PATIENTS AT ST. GEORGE'S HOSPITAL.

In addition to the cancer wards of the Middlesex Hospital, we are glad to learn that permanent provision is about to be made for the maintenance of four patients suffering from cancerous disease within the walls of St. George's Hospital, and under the care of its medical officers. These beds will be maintained from funds originally subscribed for the foundation of a cancer institution, which was "established by subscription in 1801, with the design of affording a temporary asylum for persons labouring under the disease of cancer, and of making trial of such new remedies as should be suggested by any competent authority." It was carried on for a short time, and then suspended for want of support till 1816, when it was revived, but entirely ceased to act in 1820. In the year 1842 the late Earl of Shaftesbury, the sole surviving trustee, collected all the property of the charity, including a portion which he reclaimed from the Commissioners of the National Debt, and placed the whole in one Stock in the names of two new trustees joined with himself in the trust, and the dividend was invested half-yearly in the same Stock. In the year 1872, the existing trustees, Messrs. Cæsar H. Hawkins, Prescott G. Hewett, and George D. Pollock, proposed a scheme to the Charity Commissioners for England and Wales, for the reception and treatment at St. George's Hospital of four persons, male or female, suffering from cancer, to be known as "Cancer Institution patients." The governors of the hospital having agreed to this scheme, the assent of the Commissioners was finally given on the 17th May, 1873, the accumulated Stock, amounting to £6507 9s. 9d., Three Per Cent. Consols, was transferred to the "Official Trustees of Charitable Funds," and the dividends were directed to be paid to the governors of the hospital for the maintenance and treatment of such Cancer Institution patients.

## THE SARCOTOME.

DR. HOLLIS, of St. Bartholomew's Hospital, on the 8th inst., exhibited at the Clinical Society an ingenious little instrument, to which he has given the above name, and which appears worthy of special attention. It is constructed with the view of cutting through the soft tissues of the body painlessly, and consists essentially in substituting, as a cutting apparatus, a waxed thread tightened by a spiral steel spring for the caoutchouc tubing which has hitherto acted as the elastic ligature. The spring is confined in a small metal tube closed at one end, and wormed as a screw at the other, in order to receive externally a ring. A short cylinder sliding over the metal tube is fixed to one end of the spring by means of a screw passing through longitudinal slits in the sides of the tube. Lastly, a metal cap fits on the closed extremity of the tube, and the free end of the cap is formed into a ring of metal, so arranged that one opening is terminal and the other lateral. When arranged for use, the free extremity of the spring is forced against the closed end of the tube by means of the sliding cylinder. A waxed thread or other ligature is placed round the parts to be severed, the surgeon then passes the ends of the ligature through the terminal opening of the cap and out at the lateral one, and fastens the ends by a screw-nut fixed on the outside of the cylinder. The spring is next released by removing the ring, and its whole pressure is then exerted upon the ligature. The instrument exhibited at the Society weighed less than 1½ oz., was about 3 in. in length, and capable of exerting a pressure of 11 lb. The inventor claims for the sarcotome many advantages over the elastic ligature, inasmuch as the instrument can be used with any form of ligature, thus diminishing the risk of breakage. A constant known pressure may be kept up for any length of time by occasionally readjusting the ligature, and in the few cases in which it has been used by Mr. Callender the operations were absolutely painless. The weight of pressure is indicated by a graduated scale on the inner cylinder.

## HYGIENE IN SCHOOLS.

NOT an hour too soon Dr. Riant publishes in one volume octavo, through MM. Hachette, a little work on "Hygiène Scolaire." Few subjects are of more pressing import. In France four millions of boys and girls are in attendance annually at the public schools. In Paris alone there are more than one hundred thousand of such scholars. From a hygienic point of view, many of the schools are deplorably bad,—defective in the conditions of site, of air, of light. The physician knows too well the disastrous effect of this state of things on the health of childhood and on the interests of the community. According to a writer in the *Revue des Deux Mondes*, "France will soon find herself reduced to very feeble instruments, whether of industry, of national wealth, or of security." At the Vienna Exposition, among the competitors of all nations for the best models of schools, of class-room *matériel*, and of all the appurtenances of school life, Paris obtained the palm. But her diploma of honour will not suffice for her present needs. Her models must be translated into practical operation, for if the question to-day turns on the health of her children, it will turn to-morrow on the future of the nation itself. Nor must we in England shut our eyes to similar defects requiring similar remedies. Our Public Schools Commission took cognisance of the education pursued within their walls. The time is more than due when the sanitary condition of the recipients of that education must exercise the energies of another commission, selected, not from the teaching, but from the medical, profession.

## THE LATE INQUEST AT THE MOUNT-STREET WORKHOUSE.

THE jury, after listening to the evidence adduced as to the cause of death of a girl, aged seventeen, who had been recently removed from St. George's Hospital to the above workhouse, gravely censured the conduct of the workhouse officials. It appears that the unfortunate girl had been for some months a patient in St. George's Hospital, and that her removal to the workhouse was necessitated by the repairs about to be undertaken in that hospital. The deceased was conveyed from the hospital upon an air-bed, in an ambulance, but on her arrival at the workhouse some

delay took place before her admission at all, and a still longer delay before she gained admission into the infirmary ward. The detention and exposure to cold apparently aggravated the sufferings of the patient, and it was alleged that the entreaties of the mother of the girl—a respectable widow—to be allowed to accompany her dying child into the infirmary not only received no attention, but, on the contrary, were harshly refused, and the woman, after waiting in vain about an hour and a half, left the building. The jury might well have expressed their indignation at the want of sympathy displayed by the workhouse officials, but we much doubt whether, if their conduct had really been such as described, the indignation of the jury would have had any more effect than the entreaties of the unhappy parent. We trust that the committee about to be appointed to investigate into this case will spare no pains in getting at "the truth and the whole truth" of the matter, and, unless some satisfactory explanation be given, do something more than verbally express their indignation at what was apparently a very heartless proceeding.

## A REMEDY FOR HAY FEVER.

England is the haunt of hay fever, and the season dreaded by so many victims of this affection is rapidly approaching. We would, therefore, direct attention to a communication received by Prof. Tyndall from Prof. Binz, of Bonn, which has been published in *Nature* of the 14th inst. Prof. Binz first calls attention to the discovery, made by Helmholtz as far back as 1868, of the existence of uncommon, low organisms in the nasal secretions in this complaint, and of the possibility of arresting their action by the local employment of quinine. Helmholtz, having been made aware of the poisonous action of quinine upon infusoria, determined to make an experiment with that substance on the vibrionic bodies he had discovered in the nasal secretion of persons suffering from hay fever, and for that purpose he employed a neutral and weak solution of quinine, which he poured into both nostrils with a pipette whilst the patient was in the recumbent position, with the head low. The result was most satisfactory, and the cure, which took place in the case of Prof. Helmholtz, has likewise followed in two other patients who made a trial of the remedy. Dr. Frickhöfer, of Schwalbach, and Prof. Busch, of Bonn, have also succeeded in curing the affection by the same method. Prof. Binz suggests that a tepid solution of quinine should be used, and that, instead of a pipette, Weber's simple but effective nose-douche should be employed for applying the quinine solution, care being taken that the quinine is free from adulteration.

## THE PHARMACEUTICAL SOCIETY.

The annual dinner and *conversazione* of this Society came off this week with their wonted brilliancy and effect. At the former—the third of the series—the chair was occupied by Mr. T. Hills, and about two hundred and fifty gentlemen were present. The medical profession was represented by Drs. B. W. Richardson, Greenhow, F. W. Ramsay, Tilbury Fox, Silver, Mr. de Méric, and others. The *entente cordiale* between medicine and pharmacy, always strong, never appeared in more gratifying measure than on the last occasion, the various speakers, whether pharmaceutical or medical, vying with each other to show the sympathy and interdependence subsisting between the two professions. Mr. de Méric commented ably on the connexion of the Pharmacopœia with the successive "schools" of medicine, Dr. Richardson pointed out the signal advances made by pharmacists in their science, while Dr. Greenhow gave the true explanation of this progress in the superior education and qualifying tests imposed by the Pharmaceutical Society on its members. Not less successful was the *conversazione* of the following day (Wednesday). Upwards of three thousand ladies and gentlemen were present, and the *tout ensemble* was as bright and attractive as the magnificent rooms of the South Kensington Museum could display. A well-selected series of musical compositions were performed at intervals with all the effect for which Godfrey's band is so favourably known.

## STORING OF DANGEROUS SUBSTANCES.

The Metropolitan Buildings and Management Bill, recently introduced by the Chairman of the Metropolitan Board of Works, contains a clause designed to regulate the storage of dangerous chemicals. It provides that "petroleum, phosphorus, mineral oil, turpentine, resin, tar, *pitch*, *parafin*, naphtha, varnish, fireworks, matches, sulphuric acid, *or other mineral acid*, or chemicals of an inflammable nature" (the italics are, of course, our own), shall not be stored in quantities exceeding certain limits, to be fixed in a bye-law, except in "a fire-resisting building, or a cellar, or a room on the basement storey of a building, or a room on the ground storey of a building having a cellar or vault immediately under it, covered with such arching as is required for support of floors in fire-resisting buildings."

Important as is the object to be attained, we cannot help taking exception to some items in this clause. We think, for example, that bisulphide of carbon, sulphur, bromine, and chlorate of potash, are all more dangerous substances than either pitch or paraffin, which indeed are hardly more dangerous than wax or coal. Neither bromine nor chlorate of potash is a "chemical of an inflammable nature," and we do not see how either could be brought under the clause. Moreover we fail to see why a man should be prohibited from keeping a ton of phosphoric or boracic acid in his bedroom if he chooses, and if the floor will stand it; while, on the other hand, we doubt the wisdom of permitting him, as the clause would appear to do, to store an unlimited quantity of fireworks, matches, petroleum, and phosphorus in a cellar, or on a ground floor. The Metropolitan Board of Works appear to be somewhat vague in their ideas on the subject of dangerous chemicals. We remember a public-house being burnt down a few years ago by an explosion of the vapour of rum mixed with air. Would rum come under the clause?

## BARTOLOMMEO EUSTACHIO.

The sixteenth century numbers few anatomists and physicians equal to Eustachius, whose native town—San Severino in the Marches—is about to erect a statue in his honour. A national committee, under the presidency of Tommasi, is collecting funds for this object. It appeals to foreign physicians and foreign seats of learning to contribute. Medical and scientific Europe owes a deep debt of gratitude to the author of those anatomical plates which are probably the first of the kind ever etched on copper. Given up for lost for nearly a century and a half, the Pope presented them to Lancisi, his body physician, who first made them known (Rome, folio, 1714). A still better edition is that of the German Albinus, who, consummate anatomist as he was, thought them well worth republication two hundred years after they were prepared. It was to the prescience with which Eustachius based his knowledge on multitudes of autopsies and a vigilant application of comparative anatomy, that he retained his supremacy in the schools so long. The discovery of the Eustachian tube, of the supra-renal capsules, and of the thoracic duct, the minute investigation of so many parts of neurology, splanchnology, and myology, place him in the history of science

among the auxiliaries rather than the opponents of his great contemporary and rival Vesalius. Too late in life to reap the benefits of his conviction that pathological anatomy must be the basis of nosology, he was yet among the first to give expression to that conviction, and pave the way for the immortal Morgagni. Eustachius was, in its fullest sense, a pioneer of truth, the expunging of whose name from that memorable sixteenth century would leave a great blank in its records. His country has voted him a colossal monument in marble, and all who remember that that country was the fountain of modern science should feel it as at once an honour and a privilege to subscribe to the national undertaking. Germany is responding nobly to the appeal. Shall wealthy England permit herself to be outdone in the generous competition?

## ENTERIC FEVER.

WE are enabled to state that Lord Chelsea, eldest son of Earl Cadogan, who was lately attacked with enteric fever, is now doing well, although in a very prostrate condition. The other children who suffered from the disease are getting well rapidly. The children who escaped the poison were at once removed from the house in St. James's-place, and means immediately taken for placing the house in a better sanitary condition. We may here throw out the following suggestions and hints as regards the reconstruction of badly-built houses in which fevers have generated. Water-closets should not be built in the centre of a house; they should not open directly on the floors used in dormitories. If such faulty construction exists, it is of the first importance that soil-pipes should be ventilated. Waste-pipes of cisterns should under all circumstances be disconnected from soil-pipes and sewers. In Earl Cadogan's residence the water-closets are in the centre of the house, and open directly on the bedroom landings; the soil-pipes are *not* ventilated, and when the handle of one of the closets is pulled, a certain amount of gas from the soil-pipe comes into the house. The ventilation of closets and of the staircases is insufficient. From want of ventilation, the air on the third floor, where the children slept, was especially vitiated. The cisterns, we are told, were in a very dirty condition, and the water appeared very impure.

## NEW DIAPHORETIC AND SIALOGOGUE.

AT a recent meeting of the Société de Biologie de Paris (April 11th, 1874), M. Coutinho, of Pernambuco, brought under the notice of the members a new therapeutic agent he had brought from Brazil. It belongs to the Rutaceæ, smells like hay, but has no taste; the leaves are the active part, but do not appear to contain any alkaloid. An infusion of them, given in drachm doses, produces in the course of a few minutes copious perspiration on the face and over the whole body, quite independently of any outward application of heat, and so abundant a discharge of saliva that speech is rendered almost impossible, and upwards of a litre has been collected in the course of two hours. It also causes great increase of the bronchial secretion. It is obvious that it may be used with advantage in eruptive fevers, bronchitis, pneumonia, and erysipelas. The name of the new remedy is Jaborandi.

## COTTAGE HOSPITALS.

WHATEVER views may be held on the *vexata quæstio* of "hospitalism," there is no doubt that the controversy gave a distinct and salutary impulse to the cottage hospital movement. One of the first of these institutions was that established at Savernake, through the liberality of the Marquess of Ailesbury and other members of the Bruce family. Situated in one of the healthiest tracts of the Savernake Forest, it accommodates patients from a large number of parishes in Berkshire and Wilts, and has proved a blessing to the poor of a wide and populous agricultural district. According to the annual report read at a meeting of the subscribers last Saturday, the finances of the hospital are in the most flourishing condition—thanks to the excellent spirit of the local patrons, to the skilful management, and to the active co-operation of the clergy and country gentlemen of the neighbourhood. The success of the Savernake institution ought to have a stimulating effect on similar establishments throughout the country, till no district shall be without one or more cottage hospitals for the relief of the invalid poor.

## SMALL-POX AT PRESTON.

SMALL-POX is now alarmingly prevalent in Preston, chiefly in the poorer and crowded districts in the north end of the town. Many of the cases are of a severe type. Revaccination, where possible, is practised by the local medical men, and no effort spared by the authorities to limit the progress of the disease. The Board of Guardians have determined to erect detached wards for small-pox cases behind the existing fever hospital. As we stated last week, several men of the Lancashire militia had been attacked, and were taken to the infirmary. Since then an assistant at that institution has died from the disease.

## WESTMINSTER SCHOOL.

THERE has, we believe, been no serious outbreak of scarlet fever in Westminster School. There were but six cases in all, and these are accounted for by other causes than a local epidemic. The dispersion of the scholars at the Whitsuntide holidays was antedated to prevent anything like the contagion spreading.

THE returns of the Sanitary Association for the past week show that 1696 new cases of disease have been reported as under treatment in the public practice of Manchester and Salford. The deaths in public practice amount to 72, being at the rate of 1 in 23 cases. Two cases of small-pox were reported; measles, scarlatina, and whooping-cough show no marked change. Measles continues to be confined to Manchester, but the two last-named complaints are evenly spread over all the districts included in the returns. No typhus is reported. Four cases of typhoid have been observed, of which 3 occurred in Manchester and 1 in Salford. A considerable increase of erysipelas is observable, 13 cases being reported, against 5 in the preceding week.

AT a late meeting of the City of London Union guardians, a letter was read from the Local Government Board on the subject of the several sea-bathing establishments to which the guardians send their convalescent paupers. The Board would not undertake the supervision of such establishments, but it would approve of out-door relief being granted to invalid paupers for the purposes of sea-bathing. We hope this privilege will be frequently exercised by the guardians.

IN the House of Commons, on Monday, Mr. Cross obtained leave to bring in a Bill to make better provision for improving the health of women, young persons, and children employed in factories, and affording better means for the education of such children.

WE observe that several metropolitan vestries purpose deodorising roads and streets with solutions of carbolic acid. That agent is no doubt an excellent deodoriser, but contact with it would most assuredly destroy ladies' dresses, who will now have to be careful where they walk.

THE leviathan swimming-bath moored off Hungerford old bridge supplies London with a sanitary resource to which Paris alone can now present a parallel. Not only the ablutionary facilities it affords, but the instruction in the practice of swimming it imparts, recommend it to the encouragement and patronage of the Londoner. *In cute curandâ plus æquo operata juventus* can certainly not yet be said of all classes of the British community, while the repeated occurrence of death by drowning attests the need for a much more widely extended accomplishment in the art of swimming. Further up the Thames, as at Pimlico or Chelsea, for example, one or more baths of the same kind will, we hope, be shortly established.

AMONG the addresses of congratulation to the Lord Lieutenant of Ireland may be mentioned the numerous deputation from the Royal College of Surgeons, with the President, Dr. Denham, at its head, which expressed to his Grace the hope that he would visit their College, as also a loyal willingness to co-operate with the Government in promoting the public service in all matters relating to the profession.

FROM the debate on the Spirituous Liquors (Scotland) Bill, which was read a second time in the House of Commons on Wednesday, we are glad to find that a clause will be inserted in the Bill prohibiting grocers already licensed from selling spirits in small quantities, and that it is proposed not to grant any licence for the sale of spirits to grocers in future.

THE quarterly dinner of the Edinburgh University Club took place on the 18th inst., under the presidency of the Lord Advocate. Dr. Gairdner very ably filled the chair in the earlier part of the evening. The list of visitors included Professor Huxley, Mr. Callender, Mr. Johnson Smith, Mr. Catty, and many others, and the dinner was altogether a great success.

WE would ask the interest of governors and subscribers of the Royal Medical College, Epsom, on behalf of William Baker Brown (a son of the late surgeon, Mr. Isaac Baker Brown), who is now a candidate for admission into the institution. The case is recommended by the Marchioness of Westminster, Lady Katherine Clive, Sir J. Cordy Burrows, &c.

AMONGST the guests invited to the reception of the Emperor of Russia at Guildhall, on Monday, were Professor Owen; Mr. Curling, the President of the Royal College of Surgeons; Dr. F. J. Farre, Treasurer of the Royal College of Physicians; and Dr. Barnes, President of the Hunterian Society.

THE *Victor Emanuel*, which did such good work on the Coast of Africa, is to be paid off. It is thought that, as soon as her boilers have been put in complete repair, she will be sent to Hong Kong, as an adjunct to the garrison, and not to Port Royal, in lieu of H.M.S. *Aboukir*, as has been stated.

IN replying to a question in the House of Commons last week, the Chancellor of the Exchequer stated that the Imperial contribution towards the maintenance of pauper lunatics would not apply to lunatics in unions, but only to those in asylums.

DR. RICHARDSON, F.R.S., will shortly publish, through Messrs. Macmillan, a volume entitled "Diseases of Modern Life."

SURGEON-MAJOR J. M. COATES, M.D., has been appointed Sanitary Commissioner for Bengal.

IT is, we believe, in contemplation at the Cambridge Commencement to confer honorary degrees upon Sir Bartle Frere, Sir Garnet Wolseley, Sir James Paget, and Professor Helmholtz.

DR. DAVID WILKIE has been appointed by the Indian Government to conduct a scientific inquiry into the nature, pathology, and etiology of what is termed the "Burdwan" fever.

THE Macclesfield Town Council, in re-electing Dr. George Bland medical officer of health, at the expiration of his first year of office, have unanimously decided to make the appointment permanent.

PROFESSOR ERASMUS WILSON, F.R.S., will preside at the annual festival of the Fellows of the College of Surgeons, on Thursday, the 2nd July next.

WE have reason to believe that the present Government contemplate making a grant of £100,000 to the funds of Owens College, Manchester.

# REPORT
## OF
# The Lancet Sanitary Commission
## ON
# THE INFLUENCE OF CERTAIN CHEMICAL MANUFACTURES ON HEALTH.

### No. II.

IN the first part of this Report* we described the chief processes involved in the great alkali trade, and some of the modifications recently introduced among them. Two more of these modifications must still be noticed as bearing closely upon our present subject. They both relate to the manufacture of chlorine.

The first of these is known as the Weldon process. Formerly the strongly acid solution of chloride of manganese which remains in the generators after the action of the hydrochloric acid on the manganese is completed was thrown away into the nearest watercourse, and this practice still prevails in some manufactories. But Mr. Weldon succeeded, by an ingenious device, in regenerating almost the whole of the manganese from the waste liquor. Chalk is first added in sufficient quantity to neutralise the free acid and precipitate the whole of the manganese in the form of the white proto-hydrate. Air is then forced through the magma until the manganese is converted into peroxide, which subsides as a black mud. The chloride of calcium is then drawn off and some of it is utilised, while the manganese is left in a state fit to be used again.

This regenerating process appears to be unattended with any nuisance. Its sanitary interest lies in the great improvement which it effects in the character of the waste which goes to the watercourses. The acid liquid is not only destructive to fish, but, by its action on the alkali waste, which is in some places piled in mountains round the streams and which is washed into them by rains, it causes the evolution of sulphuretted hydrogen in such quantity as to poison the air of the whole neighbourhood. The notorious "Sankey brook" at St. Helens is a flagrant example of this double pollution. Its water has the colour of pea-soup, and emits a stench that we perceived distinctly half

* THE LANCET, April 4th.

a mile off. This matter, however, lies beside our present inquiry.

The other recent modification of the chlorine manufacture was introduced by Mr. Deacon, of the firm of Gaskell, Deacon, and Co., of Widnes, and is, from beginning to end, different from the older process. It depends on the curious fact that when a mixture of hydrochloric acid and air is brought into contact, at a temperature of 800° or 900° Fahr., with sulphate of copper the acid is decomposed, and water and chlorine are formed, the copper salt meanwhile undergoing no change. The decomposition is effected in a large iron chamber filled with fire-bricks saturated with the copper salt. The chlorine, mixed of course with nitrogen, oxygen, and unaltered acid, is washed, dried, and then presented to the lime in a series of small chambers piled above one another in a stack like an enormous chest of drawers, through which the gas passes in succession. Here the whole of the chlorine is absorbed, and the gas which finally issues can even be breathed. The current of gas is not forced, but sucked through the apparatus by a small fan at the end, and hence a slight vacuum is maintained throughout. In this way all danger of leakage is avoided, and it appears easy to remove all traces of free chlorine from the lime chambers before they are opened. The removal of the bleaching powder is effected by opening doors at the ends of each of the small chambers, and raking the powder to a hole in the centre, which passes downwards through the whole stack, and discharges into a cask placed below.

Of the comparative merits of the Weldon and Deacon processes, from an economical point of view, we can of course say nothing. Each is highly praised by manufacturers of experience. But the latter has the great merit of removing from the manufacture all danger to the workmen. In raking out the chambers the men stand in the air, and, although they still wear the flannel respirators, we found no inconvenience when we stood unprotected beside them. From the beginning to the end of the process we failed to detect anything that could be noxious to health.

The manufacture which we have thus imperfectly sketched is conducted on a gigantic scale in England, and increases in extent year by year. The town of Widnes, which now numbers 17,000 inhabitants, has been created by it in a very few years; and it constitutes a large part of the industry of St. Helens, Runcorn, Newcastle, Gateshead, and South Shields. A few of the statistics of the Newcastle chemical works (formerly Messrs. C. Allhusen and Sons'), which is, we believe, the largest, will give some idea of the importance of the manufacture. These marvellous works stand upon 137 acres of land, of which nearly 60 acres are covered with buildings and railways. They include gasworks, sawmills, engineers', boiler-makers', and coopers' shops, and brick, pipe, and tile works; and they find employment for 2600 hands: 850 ship-loads of raw material arrive annually, and more than 50,000 tons of chemicals are produced. Every week 750 tons of salt are decomposed, 600 tons of soda-ash and 170 tons of bleaching powder being thereby produced, with a consumption of 2900 tons of coal. There are 30 leaden chambers for the manufacture of vitriol, each 175 ft. long, 21 ft. broad, and 20 ft. high, with a total capacity of 2,205,000 cubic feet—a fact which recalls Liebig's remark that the civilisation of a country might be inferred from the quantity of sulphuric acid which it consumed.

We will now turn to the medical aspect of the subject. Our first inquiries were conducted in Newcastle, and consisted in personal examination of the men, study of the records of the Newcastle Infirmary, and conversation with the leading medical men of the place. By none of these methods could we establish anything definite against the chemical works. Some of the men working in the fumes of hydrochloric acid and in the dust of bleaching powder complained of and obviously suffered from dyspnœa, but we could not find that serious mischief resulted from it. The work in the chamber is very exhausting, but the men have short spells of it, good pay, and much time at their own disposal, so they are naturally inclined to make the best of things. At the infirmary we found that even less evidence could be obtained. The physicians were not aware of any extensive mischief caused by chlorine, and showed us that out of 366 consecutive patients admitted into the infirmary, only two were recorded as chlorine-workers. On the other hand, however, it must be remembered that the chlorine-workers are very few as compared with the total number of hands engaged in our alkali works, and that the population of Newcastle is over 130,000. Similar negative evidence was communicated to us by some of the general practitioners of the town. Dr. Lyle, who is surgeon to several clubs, and has great experience in regard to the health of the factory hands, regards the chemical works as exceptionally healthy, and told us that no objection is ever made by the clubs to the admission of men from them.

In Lancashire the evidence that we gleaned was more contradictory, and unfortunately with all our efforts we were unable to arrive at a satisfactory conclusion either way. We could get nothing definite from the men, and the medical practitioners of the neighbourhood seemed to hold very opposite views on the question. Some held the Newcastle view, that no harm arose from the works; while others attributed very serious ill effects to them. Of the last kind of evidence the most important is that of Mr. McNicoll, the medical officer of health to the St. Helens Corporation, whose experience none can deny. He writes as follows:—"The workmen who suffer most are those employed in the alkali works. In these works there are always present quantities of free chlorine and hydrochloric acid, as all the latter does not ascend the chimney as it ought to do. These gases produce irritative bronchitis, which increases in severity according to the length of time employed in the works. Others suffer from extensive dyspnœa occasionally when removing charges; so that I may safely say that few men can work in an alkali factory for any length of time without injury to the respiratory tract. This bronchitis after a few years causes emphysema in one class of men, and in another tends to disintegration of lung-tissue, terminating fatally in chronic phthisis." The rest of the letter is devoted to the distinct, though equally important subject of air pollution, which for the present we leave. Dr. Angus Smith tells us that he also has received very contradictory accounts of the matter, and has as yet no definite evidence. He remarks, however, that the men employed in the chambers appear unhealthy, and seem "not to enjoy life well." The effects of the dust he thinks "must be bad."

From what has been said, it will be evident that the grave question whether certain parts of the alkali manufacture are, or are not, seriously injurious to health must for the present remain unanswered. We are inclined, upon the whole, to think that more searching inquiry would bring to light a greater amount of mischief than most persons suspect. We are inclined to ascribe much of the conflict of opinion in this case to the fact that few medical men keep any record of the nature of the work upon which their patients are engaged. It is only by the systematic preservation and collection of such records that the truth in regard to the effect of a manufacture upon health can be elicited. If all the medical men of a place could be induced to join together for a limited time with such an object, trustworthy evidence would soon be forthcoming. Perhaps the Northumberland and Durham Medical Society, which has already in various ways done good service to medical science, may be able to organise the machinery necessary for such an inquiry. It possesses in its president, Dr. Philipson, one who, from his previous labours in this field, is well qualified to head the movement, and it possesses in its local surroundings a most admirable field for the work. Whatever manufacture were selected for investigation, the results, if collected from a sufficiently large area, and by a sufficiently large staff of medical inquirers, would be sure to be of high value.

It is perhaps premature to discuss remedies while the existence of a tangible evil remains doubtful. If the evil were proved, it would, we fancy, be easy to lessen or avoid it altogether. The dust nuisance is, as we have seen, avoided almost entirely by the use of Deacon's process, but it would obviously be undesirable, or even impossible, to force any one process, and particularly a patented process, upon other manufacturers. Alternatives, however, might in all probability be found, and would be eagerly adopted by the masters at any rate, who, in all cases that we have met with, show great anxiety to do all that can be done for the benefit of the men.

One of these proposed alternatives, applicable to a variety of similar cases, has been recently exhibited to us, and possesses certain very manifest advantages. We give an engraving of the apparatus, which is known as the "Denayrouze Patent Respirator." It consists essentially of a hard,

light, but very flexible tube, with caoutchouc mouthpiece, by which air can be inhaled from any distance, while a valve permits the escape of the products of respiration. The

nostrils are closed by a spring clamp. Breathing with this apparatus does not appear at all laborious, and as it is light it can easily be carried without interfering with work. Its only disadvantage is that it renders it necessary to breathe exclusively through the mouth.

## MORTALITY AT SEA IN 1873.

THE return relative to the deaths of seamen in the British Merchant Service during the year 1873 has just been issued. It applies to the 202,239 seamen in British registered ships of the United Kingdom, exclusive of river steamers, so far as their deaths take place out of the United Kingdom, so that it does not include passengers nor masters, nor those who are landed at home in a dying state on return from sea. Therefore, as regards disease, this return does not enable any reliable comparison to be made with the mortality in any other section of the population. This will be evident when we state that whereas the death-rate from disease under medical care in the Royal Navy in 1872 was 6·05 per 1000, that registered in the mercantile marine out of the United Kingdom, without medical aid, is only 8·41 per 1000; the fact being that under the continuous service system in the Queen's service sick and dying men are, on arrival in England, discharged to the naval hospitals and their deaths included in the mortality returns. We have, then, no hesitation in affirming that the death-rate from disease amongst merchant seamen is probably double that which appears on the face of these returns. We must also raise our voice against the delusion that any reliance can be placed upon the forty sub-divisions of diseases under which these fatalities are grouped, so long as the diagnosis is in each case determined by the mate or the master of the ship, without any subsequent medical inquiry into the symptoms and treatment on which that determination is based. The fact of death is only known at all because the Board of Trade, with commendable care, administers to the wages and clothes of deceased seamen; and the Board is concerned alone with the fact, not with the cause of death. It is a pity that the return does not confine itself to fact, as the guesses made by mates and masters about the disease are utterly illusory.

No such observation obtains as to the violent death-rate, as mortality from accidents is not so largely affected by its ultimation occurring within the United Kingdom, and so being excluded from the return. We may fairly assume that most of the deaths by accident, being of a sudden character, are likely to result on the high seas where the occurrence takes place, and will therefore appear in this return. As no medical inquiry ascertains the cause of such deaths as are supposed to result from disease, so no legal investigation by coroner or otherwise follows upon suspicious or sudden deaths at sea. During twenty years no person has been put on his trial for causing a death at sea otherwise than by red-handed murder. But if murder may be inquired into and punished, why not manslaughter, negligence, carelessness, and other preventable causes? Mark the effect of the absence of all inquiry in deaths by violence in 1873—a year when a Royal Commission was sitting, the Board of Trade being badgered on all sides, and Mr. Plimsoll appealing to popular indignation. In that year 1000 *more* seamen were drowned than in the preceding one, though 1481 *less* men were employed; 17·58 merchant seamen per 1000 were killed or drowned for every landsman per 1000 in the home population killed by accident, or for every 2¼ men-of-war's men per 1000. For every merchant seaman who died by disease out of the United Kingdom two others were drowned. Had the death-rate per 1000 of the Royal Navy in 1872 obtained in the mercantile marine last year, 2231 men drowned by shipwreck, 794 of those who were washed overboard or otherwise drowned, and 75 of those who were killed by other accidents, out of a total "accidental" death-list of 3554, would have been now alive. Instead of a total mortality of 5393 men, or 26·67 per 1000, we should have had only 1717 deaths, or 8·5 per 1000, and this notwithstanding that the former rate does not include mortality after arrival and discharge in the United Kingdom, whilst the latter does include it.

With whatever this violent death-rate be compared, it shows a vast waste of human life. That a great deal of this vital waste is quite beyond the natural risks of the sea, and is easily preventable, seems, in the absence of any legal inquiry, to be a reasonable conjecture. Before anything can be done to stop this vast accession of drownings, a coroner must inquire, in each individual case, according to the old sea law, "whoe killed him, and unto whome the ship did belong." In the face of the following table, may we not ask, "Is there not a cause" for such inquiry?

*Mortality in the British Merchant Service out of the United Kingdom.*

| Supposed Cause of Death. (202,239 men employed.) | As it was in 1873. | | As it would have been if same ratio as Royal Navy in 1872. | |
|---|---|---|---|---|
| | No. | Ratio per 1000 men. | No. | Ratio per 1000 men-of-war's men. |
| Disease and natural causes | 1653 | 8·17 | 1223 | 6·05* |
| Drowned by shipwreck ... | 2231 | 11·04 | — | — |
| Drowned otherwise ... ... | 1032 | 5·10 | 238 | 1·18 |
| Other accidents ... ... ... | 291 | 1·44 | 222 | 1·1† |
| Murder and homicide ... | 5 | ·024 | 4 | ·02 |
| Suicide ... ... ... ... ... | 41 | ·203 | 30 | ·15 |
| Unknown causes... ... ... | 140 | ·693 | — | — |
| Total for legal inquiry ... | 3740 | 18·5 | 494 | 2·45 |
| Mortality out of Unit. Kingd. | 5393 | 26·67 | 1717 | 8·5 |

* Including deaths in the United Kingdom.
† Including gun exercise and action.

## CAMBRIDGE PHILOSOPHICAL SOCIETY.

### THE USE OF THE LIGAMENTUM TERES OF THE HIP-JOINT.

AT a meeting of this Society on April 27th, Mr. W. S. SAVORY, F.R.S., read a paper on the Use of the Ligamentum Teres, which, though variously stated, he did not think had been correctly given. The statement that the ligament is vertical and tight when the person is erect had been challenged, but he was satisfied of its accuracy. It could be demonstrated by removing the bottom of the acetabulum with the trephine. The ligament is moderately tight when a person stands evenly upon both legs. It is tighter when the femur is slightly flexed as it more usually is. But when resting upon one leg, inasmuch as the pelvis is then raised on that side, which of course affects the ligament in the same way as adduction of the femur would do, then the ligament becomes extremely tense. In other words, it becomes tightest when the hip-joint has to sustain the greatest weight. When, therefore, the pelvis is borne down upon the femur, or when the femur is forced upwards—that is, when the pressure would be greatest between the upper part of the acetabulum and the opposite surface of the head of the femur—it is put directly on the stretch. More precisely, its great purpose is to prevent undue pressure between the upper portion of the acetabulum, just within the margin, and the corresponding part of the head of the femur. But for this ligament such undue pressure must inevitably occur. Suppose the ligamentum teres absent, and the person standing upright, owing to the obliquity of the acetabulum and the head of the femur—of the axis of the joint,—pressure between the two could not be equally, or nearly equally, diffused over their opposing surfaces, but it would be concentrated on a spot in the upper part of the socket through which a line drawn down the body, through the joint into the leg, would pass. When the thigh is straight, when the femur is in a line with the body, as when one stands upright, then is the ligamentum teres in the same line too, and, consequently, any force which drives the femur and pelvis together must tell at once upon the ligament, and be directly checked by it. Owing, therefore, to the shape and obliquity of the hip-joint, and the weight of the body, the ligamentum teres is necessary to prevent concentration of pressure at a particular point above it. The line through which the weight or force acts between the upper part of the acetabulum and the opposed surface of the head of the femur forms, with the line of weight or force which passes through the ligamentum teres, an obtuse angle; and the resultant of these forces is in a line which passes through the long axis of the head of the femur. When the person is erect the body partly hangs upon the ligamentum teres. This, he submitted, is the prime function of the ligamentum teres. Other purposes he did not deny, but would maintain that they only occasionally come into play, and are altogether subordinate to this one, which is especially called into action whenever the weight of the body is thrown upon one leg. He supported his view by reference to comparative anatomy, remarking that it is present when the acetabulum looks outward and the head of the femur is inclined inward; in other words, when the hip-joint is placed obliquely, so that there would otherwise be undue pressure at a particular part, and that it is absent in those animals in whom, although it is an instrument of progression, the posterior extremity does but little in supporting the weight of the body—e.g., seals and the orang-outang. In conclusion, he called attention to a specimen in the museum of St. Bartholomew's Hospital in which the ligament is absent in both sides without any appearance of disease in the joints.

In discussions which followed, Professor HUMPHRY, after expressing his obligation to Mr. Savory for affording the opportunity of discussing the subject with him, observed that the suggestions made with reference to the function of the ligament by Mr. Savory rested entirely upon the view that the ligament is tight in the erect posture. Professor Humphry was one of those who had challenged this view, of the accuracy of which Mr. Savory had expressed himself to be satisfied. He referred to his work "On the Human Skeleton, including the Joints," in which he had stated, as the result of careful observation, that the ligament is not tense, and cannot be rendered tense, in the erect posture. He had lately reconsidered the question and re-examined the specimens, or some of them, upon which his statement had been based, as well as other recent specimens made for the purpose, and he was convinced that it was correct. In the first place, the furrow in the head of the femur for the ligament is more or less oblong or pear-shaped, and is directed from above downwards and backwards with such obliquity that the ligament can lie in it, as it must do when it is in a state of tension only the semi-flexed position of the hip, the thigh being inclined from the vertical to an angle of about 45°. This can be seen in the dry bone, and still better in recent specimens in which the direction of the insertion of the fibres of the ligament corresponds with this view. Secondly, the trephine hole through the bottom of the acetabulum shows clearly that it is at about this angle only, and when the thigh is adducted, that the ligament is really tense. In the erect posture—and by the erect posture he meant when the thigh descends vertically from the pelvis, and the capsular ligament, more particularly the anterior part of it, is tight—neither adduction, nor rotation, nor any other movement will throw it into a state of full tension. If this is so, which the several specimens examined by the Professor proved to be the case, then it is quite certain that the body cannot hang upon the ligamentum teres when the person is erect, and the inferences based upon such a view fall to the ground. When resting upon one leg the body is tilted a little over to that side so as to throw the line of gravity more directly to that limb, the opposite side of the pelvis is slightly raised, the movement being equivalent to that of abduction of the limb upon which the weight is borne, and the ligamentum teres is not stretched, but is still more relaxed than in the erect posture. Even in the position of "stand at ease," when the weight is borne upon one limb and the opposite side of the pelvis is lowered, the other limb being placed upon the ground slightly flexed, the movement now being equivalent to that of adduction of the weight-bearing limb, though the ligamentum teres is less relaxed than in the former position, and is also less relaxed than in the erect posture, still it is not tight; and the body is slung, not upon the ligamentum teres, but upon the thick and strongly resisting upper portion of the anterior ligament of the hip. The use of the ligament the Professor believed to be, as he had stated in his work, to assist in bearing weight when the limb is placed upon the ground partially flexed and adducted, when the capsule of the hip is comparatively relaxed, and when, if the body be overweighted, dislocation is most likely to occur. In estimating, however, its value, even in this position, it must not be forgotten that several instances have occurred, some of which are noted in Meckel's *Archiv*, vi. 341, in which the ligament was wanting without its being known that any inconvenience had resulted from its absence. In dislocation, too, it must be severed, and it is highly improbable that it ever unites. It has been found, indeed, ununited. Still, the loss of it does not appear to be much felt. With regard to other mammals the ligament, as stated in the paper, is commonly absent when the lower limbs do not bear much weight, and also when they descend vertically from the pelvis. The Professor had, however, pointed out in the *Journal of Anatomy*, vol. iii. p. 312, that it is present in the Rats. In most mammals in which it exists the dimple or furrow or angular depression which it occupies in the head of the femur is oblique, as in Man, indicating its tension, in them as in him, to occur in the semi-flexed position of the joint. There were other points to which the Professor took exception, but the important one was this of the position of the joint in which the tension of the ligament takes place.

Mr. SAVORY, in reply, remarked that he quite agreed with Professor Humphry that, if he were wrong as to the assumption of the tension of the ligament in the erect posture, his view fell to the ground, but he could not agree with the Professor as to what really is the erect posture. The skeletons in museums are commonly articulated wrong, and give too much inclination to the pelvis, and he thought Professor Humphry was in error on this point, and that if the ligament be examined in the strictly erect posture it will be found tight, or more nearly so, than the Professor admitted. He added that by applying his view he had generally been able to judge from the direction of the limbs in well-articulated specimens of animals whether the ligament had been present during life or not. Still there were

some exceptions, among the most notable of which was the difference between the ostrich and the emeu. In the former it is large, whereas in the emeu it is absent. Yet, though he had visited the latter animal in the Zoological Gardens, and examined its posture and movements with reference to this question, he had been unable to make out why it should thus differ from the ostrich.

# Correspondence.

"Audi alteram partem."

## THE HOSPITAL FOR WOMEN.

*To the Editor of* THE LANCET.

SIR,—I am much amused at the tone of injured virtue which Dr. Protheroe Smith has assumed in his last letter on the Soho scandal. He is an admirable illustration of the "superior person" which Mr. Disraeli so sarcastically described some time ago, and he seems anxious to direct attention from the real points at issue by showing how magnanimously he can pity my failings. I fear his anxiety on this head is somewhat out of place. As, however, I have neither the time nor the inclination to carry on a personal controversy with Dr. Protheroe Smith, let me, in concluding this correspondence, briefly recall the attention of the profession to the real facts of the case.

First, with regard to the bye-law, Dr. Smith has not attempted to defend his action in this matter, since that was unanimously condemned by the whole medical press.

Secondly, as to the question of the nursing, Dr. Smith's first statement was that our inquiry had reference to "the private character of the matron," and he evidently wished it to be inferred that this only was the subject of our inquiry, for he made no allusion to the nursing; whereas I affirmed that from first to last it was entirely a question of nursing, and that the other charges preferred by one of the nurses came out quite incidentally. This is fully substantiated by the letter of my colleagues.

Dr. Smith has a convenient way of using words for effect, which, when proved to convey a meaning contrary to fact, and thus, as I have said, to misrepresent facts, he substitutes for others having a totally different meaning, and without any defence of those first used. There are numerous illustrations of this in his recent correspondence. Thus, the term "private character of the matron" in his first letter softens down into "matron's conduct" in his last. Of course we were bound to inquire into "the matron's conduct" so far as it related to her share in the utter inefficiency of the nursing, but we did not investigate it further, and on this head Dr. Protheroe Smith was on one side, all the rest of his colleagues on the other.

As I said, Sir, in my first letter, motives are always difficult things to gauge, and I leave it to your readers to discover what motives I could have had in joining the rest of my colleagues in an inquiry of the kind we instituted after painful experience had taught us how urgently it was called for. Dr. Smith's motives may have been as pure, as high-minded, as unselfish, as generous to all his colleagues, as he would have you believe; if so, as I said at first, he has singularly erred in judgment, and this error has, I fear, made his actions, which are the practical application of his judgment, and are usually a test of motives, liable to another interpretation.

I am, Sir, your obedient servant,

ALFRED MEADOWS.

George-street, Hanover-square, W., May, 1874.

*To the Editor of* THE LANCET.

SIR,—In reply to Dr. Protheroe Smith's letter, which appeared in your last issue, we beg leave to state that paragraph 4 (referred to by him) in the letter of the late house-physician of the Hospital for Women merely referred to the "impropriety of the general conduct" of the late matron. This letter was read at a meeting of the medical staff on Nov. 24th, 1873, when Dr. Smith was in the chair, and Dr. Meadows was not present. In reply to Dr. Smith's statement, we affirm that Dr. Meadows is quite correct in saying that "in the course of our investigation into the nursing, and the matron's share in its defects, one of the nurses, quite unsolicited, and unexpectedly to us, made some charges against the matron," which we felt bound to report to the Board for investigation, but which, so far as we know, never were investigated. Dr. Smith, though in the chair on Nov. 24th, did not take any steps to defend the matron from the general charges then made in his hearing, and refused to attend the adjourned meeting which it was then resolved to hold for the full investigation of the subject. He contented himself with giving notice of the following motion, which is the best evidence of his feeling towards his colleagues:—"That the members of the sub-committee (i.e., the assistant-physicians) be requested not to attend the meetings of the medical committee for the future."

We are, Sir, your obedient servants,

JOHN SCOTT, F.R.C.S.
CHRISTOPHER HEATH, F.R.C.S.
ARTHUR W. EDIS, M.D.
CHARLES E. SQUAREY, M.B.

I refrain from adding my signature to the above, as I resigned my appointment of dentist to the hospital solely on the ground of the changes in the bye-law. I have throughout abstained from taking any part in the question of the nursing, as not coming within my cognisance.

THOMAS EDGELOW, M.R.C.S.

*** Here this painful controversy must end.—ED. L.

## THE NAVAL MEDICAL SERVICE.

*To the Editor of* THE LANCET.

SIR,—At a time when the interest of the Naval Medical Service is receiving attention by the War Secretary, it may not be out of place to make a few remarks with regard to the manner in which the services of the junior branch of the naval medical officers engaged in the late Ashantee campaign have been recognised in comparison to that of their more fortunate brother officers of the army.

The heads of both naval and military medical departments on the Gold Coast have received their well-earned rewards—well-earned indeed when the vital statistics of the troops engaged come to be compared with those of other expeditions in former years. But was not the success achieved in a great manner due to the promptness and zeal with which the orders of the senior were put into execution by the junior medical officers?

Be it understood that it is without the slightest tinge of envy that I draw a comparison between the naval and military medical officers, for everything the latter have gained they did so honestly.

The services performed by the naval hospital ships at Cape Coast Castle and at St. Vincent I will not refer to, as I think they have been well ventilated in your widely-read pages.

The services of naval surgeons on shore, both before and after the arrival of the white regiments, need no comment, as they have been the special subject of a eulogium both from Commodore Hewett, V.C., and Sir A. Armstrong, K.C.B.

The point to which I wish specially to draw attention is, the remuneration of those junior officers who served both on land and sea, and who, by their standing in the service, were ineligible for promotion.

From the day the army surgeon touched at Sierra Leone till the day he left the coast his pay was double. If sick or in a hospital-ship, or cruising for the benefit of his health, it made no difference in his pay. Even those officers who were sent in the *Simoom* to St. Helena and Ascension had their rate of pay unaltered, though their services were lost to the expedition from Nov. 20th to Dec. 28th.

What is the case of the naval medical officer? I have heard from one who was first to reach Cape Coast Castle, and one of the last to return, that his extra pay for landing amounted in all to about £13 13s. I only mention an example; there were others as badly off as he, if not worse. Where does the fault lie? Is that the way to render a service already nauseous palatable? Two branches of the service, working hand in hand; one has double pay, the other nothing. *Eheu!*—I am, Sir, yours &c.,

ABRAKRAMPA.

## DRUNKENNESS AS A CAUSE OF ACCIDENTS.

*To the Editor of* THE LANCET.

SIR,—In confirmation of the "Drunk Statistics" reported in Saturday's LANCET (16th), from the Newcastle Infirmary, I send you the enclosed note from our house-surgeon, who only the week before had, in conversation with me on the subject, stated as much as he now does in writing; and I have no doubt, on inquiry, the same story would be told by every existing hospital in London or the country; at all events it is so at the infirmary here, as I can testify, not for night admissions, but for admissions all round.

I am, Sir, your obedient servant,

Hertford, May 20th, 1874. JOHN WOODHOUSE.

General Infirmary at Hertford, May 18th, 1874.

DEAR SIR,—From personal experience I can testify to the fact of the diminution in the number of accidents admitted during the night at St. Bartholomew's Hospital since the passing of "Bruce's Act."

Being the only one of five dressers living in college, I was fortunate enough, during my dressership, to get all the night duty during one week, and generally part, if not all, that of one of the other surgeons.

It is my firm belief that two out of every three accidents (except those occurring amongst the butchers in Smithfield Meat Market) admitted whilst I was on night duty were caused through drunkenness.

My experience whilst holding other appointments at the hospital during 1871 and 1872 was that the number of night accidents caused by drunkenness had greatly diminished since the public-houses had been closed at eleven o'clock.

If you wish for further evidence, it might be furnished by either of the present house-surgeons who may have held the appointment of dresser before the passing of the Act.

The best evidence of all would, I think, be obtained from the three box-carriers (the fourth being a new man), who will tell you that there are not nearly so many accidents admitted at night as before the '71 Act was passed, and that the number of Saturday night "drunks" has considerably diminished.

Yours truly,

Dr. Woodhouse. WILLIAM ODELL.

## MR. BRYANT'S LECTURES ON BLOODLESS OPERATING.

*To the Editor of* THE LANCET.

SIR,—In common, I doubt not, with many of your readers, I have much admired Mr. Bryant's observations "on bloodless operating," but in your last issue he details some cases of "the removal of internal hæmorrhoids by the galvanic cautery," and in these cases I beg to submit, Sir, that in no possible sense can the hæmorrhoids be said to have been *removed* by the *galvanic cautery*. Briefly, this is Mr. Bryant's description of the operation:—"When the parts are strained down, the different portions of the bowel to be removed are seized and clamped; the projecting part is then cut off with scissors, and the galvanic cautery applied so as to form a dry eschar." The piles therefore are not *removed* by the *galvanic cautery*, but that apparatus is employed to prevent possible bleeding. How Mr. Bryant can further state that the treatment of hæmorrhoids is much *simplified* by the introduction of the galvanic cautery is a puzzle to me. Surely the galvanic cautery is not more simple than an iron heated by fire. I have several times seen internal hæmorrhoids *really removed* by galvanic cautery (in the way I presumed Mr. Bryant meant until I read his lecture) thus: the pile is drawn down, encircled by the platinum wire, which, heated by the battery, cuts through the pile at its base. This operation I am bound to say was in no case, neither immediately nor subsequently, satisfactory.

On analysing Mr. Bryant's cases they do not appear to me to be in any way remarkable, neither for rapidity of recovery nor freedom from pain; in these particulars they singularly differ from the cases which have been from time to time reported by my friend Mr. Henry Smith.

I am, Sir, your obedient servant,

WM. ALLINGHAM.

Chandos-street, Cavendish-square, May 16th, 1874.

## TRANSMISSION OF CHOLERA.

*To the Editor of* THE LANCET.

SIR,—At a meeting of the Royal Medical and Chirurgical Society, a report of which appears in your issue of the 4th ult., Sir William Gull is said to have stated that "cholera did not descend rivers but ascended them, and that this was a fixed and certain law."

In an invasion of epidemic cholera which appeared in Canada about twenty five years ago, and which for some days carried off sixty or seventy of the inhabitants of Quebec daily, the disease unquestionably *descended* the St. Lawrence from Montreal; and in the regiment of which I had medical charge, and which was then quartered in the citadel of Quebec, none of the hospital attendants were attacked, although many cases were admitted, and there was no indication of spreading by contagion or evacuations. I observed a singular appearance of the atmosphere at the time.

I remain, Sir, yours, &c.,

May 19th, 1874. A. M. D.

## CRANIOTOMY BY MUNGO PARK.

*To the Editor of* THE LANCET.

SIR,—Allow me to correct an error in THE LANCET of May 9th. In the report of the proceedings of the Obstetrical Society of London it is said that Dr. Playfair alluded to the case of Mungo Park, upon whom he said "craniotomy" had been performed. This is a mistake. Some years ago I showed to the Obstetrical Society of Edinburgh a woman upon whom craniotomy *had been performed by* Mungo Park when he was a practitioner in Selkirk.

I am, Sir, yours truly,

Heriot-row, Edinburgh, May 19th, 1874. JAMES A. SIDEY.

## PARIS.

*(From our own Correspondent.)*

A CROWDED audience lately met at the "Young Men's Christian Association" to hear an eloquent lecture, by Dr. Bateman, of Norwich, on "Darwinism tested by recent researches in language." Sir John Cormack, in introducing the lecturer, made some preliminary remarks on the ingenious speculations of Darwin, which were laid before the scientific world not more than fifteen years ago, and yet had, within that short period, commanded the attention and elicited the critical acumen of the naturalists of all countries. The general public, too, as represented by the pulpit, the press, and the platform, had manifested a strong interest in the subject now popularly known as Darwinism. This could hardly be looked on as very remarkable, if, on the one hand, we considered the surpassing interest attaching to all facts and scientific speculations bearing upon the origin and natural history of the human race; and, on the other hand, the high intellectual ingenuity of the author, and language so essentially beautiful as to charm even when it failed to convince. Dr. Bateman had not been convinced by the arguments of the great naturalist, and he would presently explain the why and the wherefore. Dr. Bateman had a peculiar right to hold his own views on Darwinism. He had profoundly studied, and, in a masterly manner elucidated, in a published work, the affection called aphasia, and in respect of Darwinism the outcome of his researches was this,—*that language was a distinctive attribute of man*. The lecturer, after reviewing the main features and general purport of Darwin's work on the "Descent of Man," and calling attention to the author's statement that the difference in mind between man and the lower animals was one of degree only, and not of kind, proceeded to show that man does possess a distinctive attribute of which not a trace can be found in the ape—an attribute creating an immeasurable gulf between the two. This attribute was the faculty of articulate language, and it was the difference of kind of which Darwin was in search. After defining the term language, Dr. Bateman discussed the question as to

whether language was the exclusive prerogative of man; and having shown that there was no analogy between the pantomimic and other forms of expression peculiar to animals and the articulate speech of man, he said "that language was our rubicon which no brute could pass." He then entered into the question of the seat of language, referring more particularly to the views of Gall, Broca, and others. As the remarkable similarity between the brain of man and that of the ape could not be disputed, it followed that, if the seat of human speech could be positively traced to any particular part of the brain, the evolutionist might say, that although the ape could not speak he possessed the *germs* of the faculty of speech, and that in subsequent generations, by the process of evolution, the speech-centre would become more developed, and the ape would speak—would, in fact, become man. Dr. Bateman, however, by a series of well-put facts and arguments, supported the propositions that—1, articulate speech was a *universal* attribute of man; 2, language was a *distinctive* attribute of man; and, 3, speech had not yet been traced to a material centre. The lecture was illustrated by diagrams; and the lecturer seemed to carry the audience along with him attentively and approvingly from the beginning to the end.

At one of the recent meetings of the Société de Biologie, Dr. Baréty communicated the details of a case realising accidentally Brown-Séquard's experiments, in which traumatism of various parts of the encephalon determined pulmonary hæmorrhage. In Dr. Baréty's case the patient (a female servant, aged thirty-five) had fallen from a first floor and fractured the base of the cranium. After various symptoms, the woman died, and at the post-mortem meningeal hæmorrhage of the right hemisphere, sero-sanguineous effusion in the lateral ventricles, congestion and pulmonary hæmorrhage of the right side, and subpleural hæmorrhage of the same side were noted. This is Dr. Baréty's eighth case in which various pathological modifications dependent on hæmorrhage and circumscribed softening of the brain, and seated on the paralysed side, have been shown. The previous seven were communicated to the same Society in its sitting of July last.

Since the beginning of April, an intense epidemic of typhoid fever has been prevalent in Lyons, and Dr. Perroud, of that city, has just published in the *Lyon Médical* an interesting history of the development of the disease. It seems that the epidemic first broke out, or was observed, at the Lyceum of the city, or Government College. Some days before the Easter holidays several of the pupils had been attacked simultaneously, and all got cured. Shortly after the closure of the College, the director received about eighty letters from various families, informing him that their children had sickened soon after their return home, and were now in bed with an attack of typhoid fever. More than one hundred of the scholars thus fell ill, and some of them died. The disease was especially intense and fatal amongst those who resided in Lyons, and not in the country, and amongst the younger subjects. In town, the epidemic broke out shortly after it appeared in the Lyceum. From April 15th to May 3rd, 358 cases were admitted into the three hospitals of Lyons. The number of females admitted was remarkable compared with that of males, almost double. Outside the hospitals the epidemic affected principally children, and, amongst adults, people engaged in the care of children, such as nurses, wet-nurses, maids, &c. Another remarkable particular is that the wealthier classes of Lyons were more especially affected, owing to the fact of the extension of the epidemic through the Lyceum scholars. In respect of the etiology of the epidemic, it is stated that the lower regions of Lyons have been especially visited. The elevated portions of the town have been almost entirely exempt. The barracks situate in these last parts have been remarkably free from typhoid, whilst those of the lower quarters of the town have been severely tried. The country around Lyons has been almost untouched by the epidemic. Dr. Perroud makes a few valuable remarks respecting the symptomatology of the epidemic. The period of invasion is especially protracted, and during this stage only slight gastric disturbance is observed. Syncope is frequent from the onset, the general weakness most marked, and epistaxis invariable. At a later period some particulars are worthy of being noted. The tongue remains large, flat, and furred; the abdomen, though covered with pink spots, is not distended and painful; diarrhœa is not constant; swelling of the spleen is very slight; thoracic symptoms very marked; temperature always high; adynamic form prevalent. Dr. Perroud makes special mention of the cold bath in reference to therapeutics. He thinks that its effects have been really wonderful in bad cases, but he quotes other cases in which death occurred notwithstanding, and even, it is thought, on account of the cold bath.

I have got recent news of *l'homme à la fourchette* from Dr. Labbé. He was still doing well, and not complaining of much pain in the stomach.

Paris, May 19th, 1874.

# Obituary.

## EDWARD CHARLTON, M.D.

BY the death of Dr. Edward Charlton, Newcastle-on-Tyne has lost one of its most conspicuous citizens, and the Northern counties one of their best physicians. Dr. Charlton was conspicuous by personal appearance, by usefulness, by professional learning, and by a high amount of general culture. It is a happy thing for the medical profession in an important district when it has among its members a man whose scholarly and scientific accomplishments give him a recognised place in scientific circles, and whose pedigree gathers about itself all that is old and historic in the social traditions of the neighbourhood. Such was the happy case of the profession of Newcastle-on-Tyne and the neighbouring counties, with Dr. Edward Charlton at its head. Dr. Edward Charlton belonged to one of the oldest Catholic families in Northumberland, and it does not diminish our interest in him to know that he remained a consistent member of the Catholic church. He was the second son of the late William John Charlton, Esq., of Hesleyside, Northumberland, where the family has had its seat since the early part of the fourteenth century. Hesleyside Hall, now the residence of Mr. Wm. Henry Charlton, is a splendid mansion, situated a short distance from the town of Bellingham, on the Wansbeck Valley Railway. The clan of Charlton, very celebrated in bygone centuries, was very numerous and influential in Tynedale, and took an active part in the border life of the district. Its fame has been at once varied and maintained by the life and character of the subject of our present memoir. Dr. Charlton was born in 1814. He was educated at St. Cuthbert's College, Ushaw, in the county of Durham, and graduated in Edinburgh in the year 1836. He was also M.D. and D.C.L. of the University of Durham. His position in the profession has long been a very honoured one. For some time before the death of the late Dr. White he was in large consulting practice in the town and district of Newcastle, and since then it would probably not be too much to say that he has been the leading medical consultee of the Northern counties. From Alnwick Castle to York one was always apt, in travelling, to encounter the genial doctor, and was sure to feel the better for seeing him. He was the *beau idéal* of a consulting physician, leaving nothing undone for the welfare of his patient, but singularly devoid of professional vanity, always, if possible, leaving the family attendant on a firmer and better footing than before.

Dr. Charlton's position in the profession may be judged of by the honorary relations which he sustained to medical societies at home and abroad. In his early days, in Edinburgh, he was President of the Royal Medical Society. He was, some years ago, President of the Northumberland and Durham Medical Society, the Transactions of which were constantly being enriched by his contributions. In 1870 he was President of the British Medical Association meeting at Newcastle, and discharged the duties of the chair with great credit to himself and the neighbourhood. At the time of his death he was a vice-president of the Association. He was honorary member of the Royal Swedish Academy of Medicine at Stockholm, and member of the Medical Society of Christiania. Finally, he was Senior Physician of the Infirmary of Newcastle-on-Tyne, and Lecturer on Practice of Physic in the College of Medicine. He was the author of a History of the Scarlatina Epidemic of Newcastle, 1847, and of various articles in the *British and Foreign Medico-*

*Chirurgical Review*, one of the most interesting of which is in the 7th volume of the *Review* (1851), founded on a report by Dr. Panum on the Sanitary Condition of the Faroe Islands, which are remarkable for their exemption from phthisical disease. His qualities as a physician were perhaps more scholarly than original, but he was accurate in diagnosis and effective in treatment. The general practitioner had few greater pleasures than to meet Dr. Charlton in consultation, unless, indeed, it were the pleasure of meeting him in scientific conference, or at his own hospitable board, where everything was of the best, including "the feast of reason and the flow of soul."

We have little room to give any adequate idea of Dr. Charlton's general accomplishments and his relations to scientific societies, or of his contributions to literature, especially to antiquarian literature. He was master of many languages, and an enthusiastic naturalist. In 1863 he was President of the Tyneside Naturalists' Field Club. One of his latest contributions to literature was a lecture delivered during the past winter before the members of the Literary and Philosophical Society, on "Society in the North of England during the last Century." He was great in Scandinavian antiquities, in the investigation of which he made frequent journeys to the north of Europe. Of his miscellaneous works, the principal was "Memorials of North Tynedale." But he was the author of various pamphlets, among others one on "Early German Versions of the Bible"; "On Ancient Vases from Malta"; "On Ecclesiastical Vestments"; "On Jacobite Relics, 1715–1745," and "The Orkney Runes." Like Sir James Simpson, he found much recreation in antiquarian research.

Dr. Charlton's illness was short, and his death sudden. He had been complaining for some time of not feeling very well, but had continued at work in his very large practice till Tuesday of last week. On that day, on returning from his country house, he sent for Dr. Humble, who found him labouring under a very severe attack of gastralgia, with flatulence and eructations. Mr. Lightfoot saw him with Dr. Humble. By soothing means he was much, though not completely, relieved of pain. On Thursday afternoon he suffered considerably from griping pain in the bowels, which was relieved by treatment, but at 7 P.M., while being read to, he suddenly complained of pain in the region of the heart, with extreme faintness, and died almost instantaneously. Mr. Lightfoot made a post-mortem examination on Saturday, and found the cause of death to be rupture of the left ventricle of the heart, near the apex, the tissue of the heart being the seat of fatty change, and extremely friable. The lungs contained a considerable number of old hardened tubercles, scattered throughout their tissue. The examination was not carried further.

We have said that Dr. Charlton's family was an old Catholic one. He himself lived and died most exemplarily in the faith of his fathers. We have read few tributes more beautiful than that of Father Nolan on Monday, on the occasion of the funeral, to the consistency and benevolence of Dr. Charlton's life. He was buried amid great lamentations in the family vault at St. Oswald's Cemetery, Bellingham. The pall-bearers were Drs. Humble, Heath, Embleton, and Gibb, and the profession was largely represented at the Catholic Cathedral in Clayton-street, and in the subsequent procession to the Central Station. Dr. Charlton was twice married, the last time about ten years ago to a daughter of Serjeant Bellasis, who survives him, and by whom he had four children.

## CHARLES JAMES FOX, M.D.

THE late Dr. C. J. FOX was the son of Dr. Joseph Fox, formerly physician to the London Hospital. He was born in London, January 25th, 1799, and studied and took his degree at the University of Edinburgh. He subsequently became a member of the Royal College of Physicians in London. He married, in 1828, Miss Guion, the daughter of Captain Guion, R.N., and in the same year commenced practice at Margate, but shortly removed to Billiter-street, in London. In 1839 he removed to 30, New Broad-street, and with this residence his name is chiefly associated, as he practised there successfully for twenty-six years. The encroachments of the railways and the consequent changes in the neighbourhood necessitated his subsequent removal, first to Finsbury-circus and then to Finsbury-square, where he practised till suddenly stricken with paralysis in the midst of his work. He may be truly said to have died in harness, for, though he subsequently rallied, he never again left his room, and at last calmly sank to rest on May 12th, 1874. Although Dr. Fox was not known as a medical writer, he was a gentleman of great powers of observation, and his accumulated experience, gentle, kindly ways, and unvarying urbanity to his colleagues and those of his brethren who met him in consultation, endeared him to a large circle of patients and friends.

He held the appointment of consulting physician to the Royal Hospital for Diseases of the Chest, to St. Elizabeth's Hospital, to the Jews' Hospital, Tower Hamlets Dispensary, and the Metropolitan Assurance Company. He was much sought after by members of the Jewish faith, by whom he was greatly beloved, and in his own (the Roman Catholic church) he was held in such high regard for his estimable and charitable life that of their own accord he was buried by his clergy with all the honours of a pontifical High Mass of Requiem.

# Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College on Tuesday and Wednesday last:—

Amyot, Thomas H. E., Diss, Norfolk.
Bradford, Peter, Hanley, Staffordshire.
Burke, William H. E., Kibworth, Leicester.
Campbell, Colin G., Dublin.
Cartwright, Alexander, Old Burlington-street.
Clarkson, John W., Surbiton, Surrey.
Collins, Walter C. G., M.B. Aberd., Chew Magna.
Cossham, William R., M.B., Clevedon, Somerset.
Davis, Robert, Gateshead.
Day, Charles H., Brightwell.
De Lautour, Harry A., Richmond, Surrey.
Denby, Timothy C., Bradford, Yorkshire.
Farnell, Henry D., Great College-street.
Garlick, George, Great James-street.
Harper, Gerald S., Christchurch, New Zealand.
Heddy, William J., Redcliffe-gardens.
Kirby, Albert E., Eastcheap.
Lawrence, Thomas G., Rutland-street.
Lees, David B., M.B., Manchester.
Lilley, George H., Ware, Herts.
Moore, George E., Hoxne, Suffolk.
Parker, Alfred E., Finborough-road.
Prichard, Arthur W., Clifton.
Ranking, George S. A., Tunbridge Wells.
Ranking, John E., Tunbridge Wells.
Sandford, Horace C., Kennington-road.
Schlesinger, Barthold M. M., L.S.A., Chichester-street.
Slaughter, John E., Farningham, Kent.
Sparrow, Walter W. B., Saltby.
Talbot, Russell M., Bromley, Middlesex.
Walby, Thomas, Liverpool.
Willans, William B., Singapore.

For the primary examination for the Fellowship of the College of Surgeons, which commenced this day (Friday) there are upwards of sixty candidates.

THERE has been a good deal of scarlatina at Hanley, Staffordshire, of late, and there are now several fresh cases in the town. Dr. Swift Walker, medical officer of health for the district, has consequently issued some regulations on the important measures of isolation and disinfection, which we trust will receive attention.

BEQUESTS &C. TO MEDICAL CHARITIES.—Lady Featherstonehaugh has bequeathed £1000 to the Chichester Infirmary. Mr. Alderman Tyzack has given £1000 to the Sunderland Infirmary. Mr. William Todd, of Wellington-road, Marylebone, has bequeathed £200 to St. Mary's Hospital, Paddington. The Royal Infirmary, Bristol, has received £100 under the will of Miss Mary Anne Riddle, and £100 under that of Mr. Thomas Marshall.

THE mortality in London last week was at the rate of 20 per 1000 annually. The 1288 deaths registered included 38 from measles, 23 from scarlet fever, 7 from diphtheria, 41 from whooping-cough, 18 from different forms of fever, 26 from diarrhœa, and 387 from diseases of the respiratory organs and phthisis. Not a single case of small-pox was recorded. To different forms of violence were referred 51 deaths. The mortality in Paris and Berlin during the same period was respectively 22 and 28 per 1000 of the estimated population.

ST. MARY'S HOSPITAL.—The anniversary festival of this institution was held last week, under the presidency of Mr. Forsyth, M.P., Q.C., supported by Sir George Baker, Sir Charles Rowley, &c. During the course of the evening, subscriptions amounting to nearly £1000 were announced.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—The annual meeting of this Society was held on the 15th inst. The report showed that the Society was in a flourishing condition, there being at present 159 members. The following gentlemen were elected office-bearers for the ensuing year:—President: Dr. Heaton. Vice-Presidents: Mr. Wheelhouse and Dr. Myrtle (Harrogate). Treasurer: Dr. Heaton. Hon. Secs.: Mr. McGill and Dr. Symes (Skipton). Committee: Dr. Clifford Allbutt, Mr. E. Atkinson, Dr. Bell (Bradford), Dr. Crichton Browne (Wakefield), Mr. Chaffers (Keighley), Dr. Eddison, Mr. S. Hey, Mr. Jessop, Mr. Leak (Hemsworth), Mr. Nunneley, Mr. Scattergood, and Mr. S. C. Smith (Halifax).

# Medical Appointments.

ADKINS, J. E., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for No. 5 District of the Plympton St. Mary Union, vice Covett, resigned.

BARDWIN, Dr., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Kilmeaden Dispensary District of the Waterford Union, vice Redmond, resigned.

BEDDOE, J., M.D., F.R.C.P.L., has been appointed Consulting Physician to the Bristol Hospital for Sick Children and the Out-door Treatment of Women.

BISSILL, J. H., F.R.C.S.E., has been appointed Medical Officer to the Workhouse, and Medical Officer and Public Vaccinator for the Sleaford District of the Sleaford Union, Lincolnshire, vice Hedford, deceased.

BOURKE, W., M.B., C.M., has been reappointed a Resident Physician to the Royal Infirmary, Edinburgh.

BRADLEY, J., M.R.C.S.E., has been appointed Medical Officer of Health for the Lunesdale Rural Sanitary District, vice Sandell: £25 per annum; acreage 75,630; population 6978.

BRYANS, J., M.D., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Clonelly Dispensary District of the Irvinestown Union, and the Pettigo Dispensary District of the Donegal Union, vice Saunderson.

CASH, A., M.B., C.M., M.R.C.S.E., has been appointed a Resident Surgeon to the Royal Infirmary, Edinburgh.

CHURCH, H. M., M.B., C.M., has been reappointed a Resident Physician to the Royal Infirmary, Edinburgh.

COLLINGWOOD, J. E., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Castle Bytham District of the Bourn Union.

CROWLEY, T., M.D., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Cork No. 7 Dispensary District of the Cork Union, vice O'Sullivan, appointed to the Cork No. 5 Dispensary District.

EVANS, T. D. F., M.R.C.S.E., has been appointed a Resident Surgeon to the Royal Infirmary, Edinburgh.

GRAINTY, F. LE M., M.B., C.M., has been reappointed a Resident Surgeon to the Royal Infirmary, Edinburgh.

GREENWOOD, J. W., M.R.C.S.E., has been appointed Medical Officer of Health for the Ossett-cum-Gawthorpe Urban Sanitary District: £40 per annum; acreage 3000; population 10,000.

GUNN, R. M., M.B., C.M., has been appointed Assistant-Physician to the Perth District Lunatic Asylum, Murthly.

HANTLEY, C., M.R.C.S.E., has been appointed Medical Officer for No. 12 District of the South Molton Union, and Medical Officer and Public Vaccinator for the Brendon &c. District of the Barnstaple Union, vice Fairbank, resigned.

KIRKWOOD, G., L.R.C.S.Ed., has been appointed a Resident Surgeon to the Royal Infirmary, Edinburgh.

MINPITT, J. B., M.B., C.M., has been appointed Medical Officer for the Nenagh Union Workhouse, vice Quin, resigned.

MINORS, R., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Benenden District of the Cranbrook Union, vice Hollis, resigned.

MOORE, J., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer of Health for the Skelmersdale Urban Sanitary District: £20 for one year; acreage 1941; population 3171.

MURRAY, R. D., M.B., C.M., has been reappointed a Resident Physician to the Royal Infirmary, Edinburgh.

PIERCE, W., M.D., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Adare Dispensary District of the Croom Union, vice Worrall, resigned.

POWELL, Dr. C. K., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Silvermines Dispensary District of the Nenagh Union, vice Quin, resigned.

REDMOND, J. J., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer to the Royal Irish Constabulary, Kilmacow and Mooncoin, vice Parks, deceased.

RUSSELL, W. C., F.R.C.S.E., has been appointed Consulting Surgeon to the Doncaster Infirmary, on resigning as Surgeon.

SEHINSHIER, F. W., M.R.C.S.E., has been appointed Medical Officer for the No. 2 District of the Morpeth Union.

SHELLIE, G. W., M.B., C.M., has been appointed a Resident Physician to the Royal Infirmary, Edinburgh, vice M'Farlane, deceased.

WATSON, F. H., M.R.C.S.E., has been appointed Medical Officer for Nos. 4 and 5 Districts of the Thingoe Union, Suffolk, vice Barker, resigned, and since deceased.

WILSON, A. C., M.D., L.R.C.S.Ed., has been appointed a Surgeon to the Doncaster Infirmary, vice Russell, resigned.

# Births, Marriages, and Deaths.

## BIRTHS.

COATES.—On the 9th inst., at Montpellier, Malvern, the wife of F. W. Coates, M.D., of a son.

CONDON.—On the 13th ult., at Fort St. George, Madras, the wife of Dr. E. Hunt Condon, 21st Fusiliers, of a son.

CROKER.—On the 14th inst., at Queenstown, the wife of Arthur Croker, L.K.Q.C.P.I., Surgeon-Major Army, of a daughter.

SIMMS.—On the 14th inst., at Twickenham, the wife of F. Simms, M.B., prematurely, of a daughter.

SMITH.—On the 11th inst., at Newton-terrace, Glasgow, the wife of A. W. Smith, M.D., of a daughter.

WINKFIELD.—On the 13th inst., the wife of Alfred Winkfield, F.R.C.S.E., of Oxford, of a son.

## MARRIAGES.

FEHRSEN—SIMPSON.—On the 20th inst., at Waverley-place, Aberdeen, N.B., James M'Call Fehrsen, M.B. (second son of G. O. de Wet Fehrsen, M.D., of Cradock, South Africa), to Catherine Agnes, younger daughter of the late Alex. Simpson, M.D., Surgeon-Major H.M.'s Indian Army.

JAY—GABB.—On the 8th inst., at St. George, Hanover-square, Edward Jay, M.R.C.S.E., to Elizabeth May, widow of G. S. Gabb, M.R.C.S.E.

STUBBS—WHATELY.—On the 12th inst., at the Parish Church, St. Peter's, Great Berkhamstead, Henry Stubbs, M.R.C.S.E., to Mary Ann, daughter of George Frederick Whately, M.R.C.S.E.

## DEATHS.

BEGG.—On the 30th ult., John Ramsay Begg, L.R.C.S.Ed., of Dundee.

BOXWELL.—On the 12th inst., A. H. Boxwell, L.R.C.P.Ed., of Wexford, aged 34.

COATES.—On the 29th ult., George Coates, L.S.A.L., of Middlesborough, aged 69.

FOWLER.—On the 15th ult., Wm. Fowler, M.R.C.S.E., of Clifton Cottage, Weymouth.

HILL.—On Easter-day, at Singapore, Dr. F. F. Hill, late of Dublin.

MAC GARVEY.—On the 11th inst., Matthew Mac Garvey, C.M., of Borrisokane, Co. Tipperary, aged 58.

WRIXON.—On the 9th inst., at Kidlington, Oxon, Jane, the wife of J. Wrixon, Surgeon, of Sarratt, near Watford, aged 54. Friends will kindly accept this intimation.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births Marriages, and Deaths.*]

# Medical Diary for the ensuing Week.

## Monday, May 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

## Tuesday, May 26.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION. — 3 to 5 P.M. Dr. W. H. Stone, "On the Theory of Musical Instruments," with Musical Illustrations.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8½ P.M. Dr. E. Sparks, "On a Disease of the Skin caused by the Acarus Folliculorum," illustrated by Cases observed in the Dog. — Dr. Lockhart Clarke and Dr. Gowers, "On a Case of Hypertrophic Muscular Paralysis."

## Wednesday, May 27.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Thursday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

## Thursday, May 28.

ST. GEORGE'S HOSPITAL.—Operations 1 P.M., and on Friday at 1½ P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ROYAL INSTITUTION.—3 P.M. Mr. N. S. Maskelyne, "On Physical Symmetry in Crystals."

## Friday, May 29.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—9 P.M. The Very Rev. the Dean of Westminster, "On the Roman Catacombs as Illustrating the Belief of the Early Christians."

## Saturday, May 30.

HOSPITAL FOR WOMEN Soho-square.—Operations, 9½ A.M.

ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. A. Proctor, "On the Planetary System."

# Notes, Short Comments, and Answers to Correspondents.

### THE LIVINGSTONE MEDICAL INSTITUTION.

SIR JOHN MACNEILL, G.C.B., presided the other day at a meeting in Edinburgh to promote the erection of a Memorial Missionary Training Institution in connexion with the Edinburgh Missionary Society in honour of the late Dr. Livingstone. The memorial will take the form of a new building for the more effective prosecution of the special enterprise the Society has in view. Formed in 1841, the Society has enjoyed the support of many distinguished surgeons and physicians. The Directors have a great local charity in the Cowgate; but the institution subserves another and a more important function. It trains medical missionaries, of whom it has sent forth a goodly band of well-qualified workers among the heathen. Among the thirteen students now on the roll, there is not one Edinburgh man. Eight of the thirteen are from abroad, and the remainder are from remote parts of Scotland. Cosmopolitan in its character, it is entitled to support from other quarters besides Edinburgh for the money required to erect a building worthy of Livingstone. £1000 has already been promised, while £10,000 are wanted. As we have already pointed out, the proposed institution has peculiar claims on medical men, tending, as it must, to raise the scientific attainments and to increase the numbers of a department of the profession capable of almost infinite development. Science in general has, moreover, much to gain by encouraging young men of scientific training to spend their lives in the partially explored regions of the earth, and her votaries in England will surely not be backward in forwarding a movement which has already given such noble earnest of what it can achieve.

*Scotus.*—1. Aitken; Watson.—2. Erichsen.—3. Barnes.—4. Royle and Headland.

### THE HIGHER EDUCATION OF WOMEN.

*To the Editor of* THE LANCET.

SIR,—During a somewhat prolonged visit to the United States in the year 1873, I had considerable opportunity of observing the physical and mental character of the Americans, and, in my opinion, the discussion on the higher education of women is at present clouded by a misapprehension of the facts and by a very one-sided method of reasoning. It is quite true that on arrival in New York one is forcibly struck with the poor, little, ill-nourished ladies who crowd the hotels and promenade the streets. Upon a close intimacy you find them agreeable and vivacious; but I think it would be a great mistake to regard them as the victims of a more advanced system of education than prevails in England; indeed quite the contrary, for a closer acquaintance with the country would prove that those who are distinguished for their social or intellectual energy are also greatly superior to those above noticed in their physical development. But the defective physical development which has caused so much remark is not observed on the entire continent. In San Francisco the women are remarkably well developed, their children numerous and ruddy-looking, and yet I venture fearlessly to state that their minds are not less cultivated, nor are their manners less charming, than those of their eastern sisters. Now, I am quite willing to admit that excessive mental cultivation has a tendency to dwarf the sexual capacities; but I think it should be remembered that the effect is just as strongly marked in the case of men as of women; and the absurdity of attributing the defective physical development of American ladies to the mode of education will appear at once, if you propose to attribute the lean, lanky, rotten-toothed American male to the same cause, because, whatever may be the mental training of the lady, none could say that the men have been overburdened in that way. According to my experience, the men and women in Chicago and San Francisco are physically and, setting aside our idea of classical knowledge as the test of mental power, mentally also the best developed in the world. It is not at all difficult to explain the causes of this well-marked superiority over the men and women of the Eastern States, and most assuredly the character and extent of the education imparted has little or nothing to do with it.

First, then, I attribute the physical degeneracy of the women in the Eastern States to the fact that the physical condition of the males is as much, if not more, impaired than that of the women. How is it possible for such thin, badly-nourished, yet unnaturally excitable people to be good sires, or the parents of healthy, well-developed mothers? Furthermore, in America, both amongst men and women, one is struck with the mental restlessness, contrasted with the physical laziness, which characterises these so-called over-cultivated people. No American walks a single step more than he can help. Every passenger on the coach sits stolidly on his seat, although he sees the horses struggling up-hill, and compelled to stop for breath every two or three yards. If anyone gets off to walk, be sure he is an Englishman. An American never rides when he can drive; never sits upright when he can lay his feet up; and takes his sherry cobbler with a straw to save himself the trouble of raising his glass to his lips. Climate may have a considerable influence in producing the mental irritability which is so remarkable in the Eastern States. The fearful heats of summer and the excessive colds of winter are alike injurious. They induce this laziness of body, and a fatal neglect of wholesome out-door exercise. In New York the whole manner of life is destructive of physical health. I am not sure which is worse, the drinking of concentrated alcoholic liquors or that of huge tumblers of ice-cold water. The first is to be seen amongst a certain number of the men; the latter amongst the entire population. Every meal commences with a jorum of cold water, and every meal ends with one—no matter whether it is breakfast, luncheon, dinner, tea, or supper—always the more meals the more water. Then there is an excessive use of tea. Ladies and gentlemen take tea with a meat breakfast, tea with dinner, and tea with supper, and often tea between. There is also an excessive use of sweets. The tables of the hotels groan with sweets morning, noon, and night. Ladies carry off from the dessert bagsful of bon-bons, cakes, sugar, and preserved fruits, to eat at their leisure. No wonder that the appetite is vicious and fickle. The Americans, particularly the ladies, appear to be always eating, yet they never make a meal. Then the mode of eating is as bad as the stuff eaten. Everyone appears to be in a hurry. They rush into the dining-room, and the tables are cleared before an Englishman has half done. At the refreshment-rooms on the railroads an Englishman starves simply because he cannot get through a meal in the time allowed. Nor is digestion promoted either by good cooking or good attendance. A score or so of little dishes are arranged around you, each containing a portion of food, which has been cut or prepared half an hour before, and everything is cold and comfortless. The characteristic of American cookery is a sweet, mawkish, messiness, the foundation of which is tomatoes and sugar, to which every American adds adulterated Worcester sauce according to his craving. Lastly, the social rush and competition prevents digestion, and induces the recourse to stimulants. The best proof that these are true causes of the degeneracy of American women is, however, the contrast presented by the people of the Western States, who represent the physical and mental energy of the whole world. Both in Chicago and San Francisco the men are tall, handsome, and well-nourished, and none but the finest women could have borne the physical fatigue which the journey across the continent entailed before the opening of the Pacific Railroad. In San Francisco all classes feed more rationally; they eat more plentifully and less frequently; they drink more wine; they take much more out-door exercise. When the heat is excessive they get into the cool air of the Nevadas by a three hours' ride; when the cold there becomes excessive they move back to San Francisco or the coast. Life, too, is not such a drive. The houses are less closed, doors and windows are nearly always open, and the hottest day is tempered by an evening breeze.

Nothing that I have yet seen in America or elsewhere discountenances the idea that it is possible to carry out a very high standard of education both in men and women without impairing their physical and reproductive powers, and in the case of women it must be admitted that they are not as yet educated to the standard which enables them to hold their own with men; indeed it is probable that it is on that account that they have been forced to maintain their interests by manner devices. Let us be more generous, and consider that education is not the highest either in men and women which cultivates the brain at the expense of the entire body.

Yours truly,

May, 1874. J. H. STALLARD, M.B. Lond.

*Alumnus.*—There is no good translation of Celsus in English. In French, and still better in Italian, there are faithful renderings of the "De Arte Medicina." The best edition is that of Daremberg, which may be had at a moderate price.

### "A CIRCULAR."

OUR attention has been directed to the following circular, which, we are informed, has been sent round to private houses.

"107, Camden-road, London, N.W., March, 1874.

"Dr. Walter Creagh O'Brien wishes to intimate to the homœopathists resident in this neighbourhood that he has embarked in practice at the above address. An experience of twelve years as a practising physician in homœopathic medicine in the north of England has only confirmed Dr. O'Brien's convictions as to the superiority of that system of treatment."

*Serious.*—The cacao tree was the only edible cultivated in Mexico up to the Spanish conquest. Its seeds were used as money, and formed the food of the Montezumas. Other parts—the leaves, for example—were consumed by the common people.

*Ignoramus* had better apply to the author of the lectures in question.

### IMPACTED FRACTURE OF THE CLAVICLE.

*To the Editor of* THE LANCET.

SIR,—A case closely resembling the one of impacted fracture of the clavicle described by Mr. Robert Nelson in your edition of May 2nd, has been under my care about two months ago. The subject of the accident, a young man about twenty, was running, and fell in the street, and the injury to the clavicle was the consequence. The symptoms of pain and shock were so marked as to convince me that he told the truth when, upon being asked, he denied having had any previous fracture or injury to his collar-bone. A considerable prominence could be felt on the bone; there was tenderness, and next morning slight ecchymosis, but not the slightest mobility at the site of the injury. He could with difficulty lift his elbow to near the level of his shoulder. He was treated as an out-patient, and had his arm bandaged to his side for about the usual time. I have not seen him since he was discharged, and therefore I cannot say if the swelling on the bone is much reduced in size.

I am, Sir, yours truly,

JAMES SUTHERLAND, M.B.

Ardwick and Ancoats Hospital, Manchester, May 12th, 1874.

### CERTIFICATES OF CAUSES OF DEATH.

*Subscriber* will find in THE LANCET of 27th June, 1868, an article on this subject, in which we proposed a modification of the form of certificate supplied to medical practitioners by the Registrar-General.

*Periscope*, (Yarmouth.)—The treatise on Water Analysis by Messrs. Wanklyn and Chapman is out of print; but a new and much enlarged edition will appear shortly. The publisher is Trübner.

*Mr. Brumell.*—Contrary to rule.

*Rusticus.*—Van Voorst's publications on Botany.

### SYPHILITIC SORES.

*To the Editor of* THE LANCET.

SIR,—In your issue of last week you report a case, detailed by Mr. F. Mason at the Medical Society of London on April 13th, of a man with a syphilitic infecting sore on the right thigh. It would be an interesting question how the sore was developed in that situation. Did the man *dress* on the right side? This would be the exception, and, if so, the infectious matter was probably conveyed directly from the penis to the thigh, although the organ itself escaped. Syphilitic sores on the skin, if primary, are very slow in developing their true character, and it may probably have been existing for some time before the patient recognised its true character. Perhaps by further inquiry Mr. Mason may be able to assert that this supposition is correct.

Yours truly,

Leamington, May 17th, 1874. JAMES THOMPSON, M.B.

### THE METROPOLIS BUILDINGS BILL.

THE Metropolitan Board of Works are likely to have plenty of fighting over their new Bill for amending the Building Acts. Notes of defiance from vested interests have already been heard; and now here is Mr. Liddle, of Whitechapel fame, taking up his parable against the Bill. From a sanitary point of view Mr. Liddle has for years urged in his health reports that the Building Acts should be amended; and when we find him condemning the attempt at amendment now being made by the Metropolitan Board, we are bound to conclude that there is a strong case against the Bill. He says of the sanitary clauses that they are so very defective as to lead to the perpetuation of nearly all the existing evils of unwholesome condition in the dwellings of the lower orders. We trust that the newly awakened interest in the House of Commons on the subject of industrial dwellings will be sustained to the point of taking care that if the Building Acts are altered at all it shall be in the direction of preventing the extension of houses constructed in opposition to elementary sanitary principles.

*A Provincial Practitioner.*—The cutisector, described, we believe, by Dr. H. G. Piffard, of New York, in the *American Journal of Dermatology* of 1870, would probably be the kind of instrument suitable for the purpose mentioned by our correspondent.

THE paper of *Mr. Wilders* (Birmingham) shall be published shortly.

### THE EVOLUTION OF SYPHILIS.

*To the Editor of* THE LANCET.

SIR,—Like, I am afraid, a good many students, I did not pay so much attention to the study of syphilis as I ought to have done when in London. Very soon in my practice I had the three following cases, which I state shortly.

CASE 1.—A youth, aged twenty-one. Slight abrasion of outer surface of prepuce; on the tenth day surrounded by distinct and considerable induration, which remained for more than two months. The patient was strumous, with glands in groin enlarged before infection, also in neck. Treated from first appearance of induration with tincture of iron and cod-liver oil. On the forty-second day from date of induration psoriasis of palms appeared; subsequently treated with iodide of potassium, five grains three times a day, and cod-liver oil. In two months psoriasis had disappeared. No recurrence of symptoms six months after. General health and appearance excellent.

CASE 2.—Small sore appearing four days after exposure, and situated on the upper and inner edge of foreskin; discharge very slight, only cuticle seemed implicated. Induration began about the ninth or tenth day, and increased until about the twenty-fifth, when the sore was healed. The glands in both groins from the first were slightly painful and indurated. On the first signs of induration five grains of blue-pill were given twice daily, and continued for two months and a half, without sensibly affecting the mouth. The induration had then, however, completely disappeared, and the glands were almost natural. Secondary eruption has been carefully looked for; but at this date (seven months) none has appeared. The skin looks healthy; there is no trace of induration in the foreskin, and the general health is good. The iodide of potassium was given for about two months, with occasional intermission.

CASE 3.—The patient, aged about thirty-five, presented himself with a button-like induration of the foreskin; sore healed in about ten days, after twenty-one days' treatment with zinc-wash. Glands in groin distinctly felt like filberts, one on each side. Surely this was syphilis, and so I informed my patient. I sent him to consult a well-known authority in town, who recommended at once a mercurial course, and confinement to the house. Being averse to this treatment, he returned to my care, and, as I soon expected some secondary sign which would convince him of the necessity of following the above advice, I advised in the meantime a regular life, attention to the general health, &c. I have waited now for four months, and during that time have seen the induration slowly but steadily soften and disappear; the indurated glands also became smaller and more natural, but no eruption or further secondary manifestation. I gave as a placebo for some weeks a little sarsaparilla extract and an occasional saline purgative.

In all three cases the health seemed little if at all affected. Case 1, in fact, rather improved, notwithstanding the secondary eruption. These have been my only cases of "infecting sores," and the results have been to me puzzling and different from what I expected. I would ask some of your experienced readers to inform me—1. What are the probabilities of a recurrence of the symptoms in Case 1? 2. Are they likely to appear *now* in Case 2? 3. Does syphilitic induration of the prepuce and glands in some constitutions disappear spontaneously without further constitutional manifestations, as in Case 3? Answers to these questions would be very gratefully received by,

Yours, &c.,
May, 1874. A YOUNG PRACTITIONER.

### THE REMOVAL OF NÆVI, MOTHER'S MARKS, ETC., BY THE APPLICATION OF PURE CARBOLIC ACID.

*Dr. James Nicholls* (Chelmsford) writes to us, strongly recommending the use of carbolic acid in removing nævi, moles, and other congenital discolorations of skin. He has tried it in several aggravated cases with most successful results, and purposes exhibiting one patient at the Pathological Society.

*Medicus.*—Watson; Erichsen.

*Hubert.*—Consult the Turkish Ambassador.

### MEDICAL SOCIETY OF LONDON.

*To the Editor of* THE LANCET.

SIR,—Some little error has crept into your notice last week of what I said at the Medical Society of London, under the heading "Death from Chloroform," which perhaps you will kindly rectify. I am made to say "Mr. Clover's was the best method, as it insured *only four or five* per cent. of chloroform being used at a time," &c. What I did, or intended to, say was, that Clover's apparatus was the best, because you could ensure a definite proportion of chloroform vapour; and that in my practice, both public and private, I never gave more than three and a quarter per cent. of chloroform, which was quite sufficient for complete anæsthesia.

I am, Sir, yours faithfully,
Charles-street, Berners-street, W., May, 1874. GEO. H. BAILEY.

ERRATUM.—In our notice of Dr. C. A. Gordon's "Notes on the Health Service of Armies during War," for "already appeared in the pages of this journal," read "the pages of another journal," the notes having been published in the *British and Foreign Medico-Chirurgical Review*.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. J. Pollock, London; Dr. Horace Dobell, London; Mr. Teevan, London; Dr. Balfour, Edinburgh; Dr. B. Yeo, London; Dr. Bristowe, London; Mr. John Gay, London; Mr. Brumell, London; Mr. Grant, Edinburgh; Dr. Edis, London; Admiral Ryder, London; Mr. J. Lewtas, Sarbiton; Mr. Kinglake, Weston-super-Mare; Mr. Sidey, Edinburgh; Mr. C. Broom; Dr. Squarey, London; Mr. Walker; Mr. Hunter, Dartford; Mr. John Lucas, London; Mr. Scott, London; Dr. Macnaughton Jones, Dublin; Mr. W. Stewart, Barnsley; Mr. Johnson, West Bromwich; Mr. Toye, London; Mr. Bailey, London; Dr. C. J. Fox, London; Mr. Thomas, Midhurst; Mr. Gallwey; Mr. Sutton, London; Dr. Dale, Scarborough; Mr. Robinson, Dublin; Dr. Hammond, Preston; Dr. Geo. Bland; Mr. Devonport, Nantwich; Mr. John Byrne, London; Mr. James Flint; Mr. Wilders, Birmingham; Dr. Stewart, Whitby; Mr. Jeaffreson, Newcastle; Mr. George Turnley, Hobart Town; Dr. Julius Petersen, Copenhagen; Dr. De Renzy, India; Mr. Jas. Thompson, Leamington; Mr. M'Gill, Leeds; Mr. W. Thompson, Melbourne; Dr. Dyce Duckworth; Dr. John Livy, Bolton; Mr. Porteous, Glasgow; Mr. Flood Page, Crystal Palace; Mr. Walker, Glasgow; Dr. Smith, Bastow; Dr. Hawkes, Alton; Mr. G. Coxwell, Brighton; Messrs. Pinchard & Son, Taunton; Dr. H. Tibbats, London; Mr. Bunny, Dumfries; Mr. Woodcock, Bradford; Mr. H. Norton, Old Charlton; Mr. Masterton, Devizes; Mr. Carruthers, Runcorn; Dr. Woodhouse, Hertford; Dr. Souter, Southgate; Mr. F. Spurgin, London; Mr. Whitaker, Derby; Mr. Youldon, London; Dr. Wallich, Herne Bay; Miss Antrobus, Carlisle; Messrs. Dunn and Hewett, London; Mr. Shapland, Croydon; Mr. Sewell, Dulwich; Mr. Freeman, London; Mr. Benson, Maryport; Dr. Gill, Dover; Mr. Marcy, Wellington; Mr. Bond, West Bromwich; Mr. Shone, Great Marlow; The Council of the Royal United Service Institution, London; A Provincial Surgeon; W. J. S.; Abrakrampa; The Editor of *The Country*; Medicus; The Registrar-General, Edinburgh; The President and Fellows of the Royal Medical and Chirurgical Society; Scotus; Ignoramus; &c. &c.

LETTERS, each *with enclosure*, are also acknowledged from—Mr. Hyslop, Church Stretton; Dr. Stewart, St. Ives; Mr. Dickson, Sutton Coldfield; Mr. Stevens, Pewsey; Mr. Walker, Crick; Mr. Badham, Tewkesbury; Dr. Harbinson, Belfast; Mr. Mead, Falmouth; Mr. Horlock, Leicester; Mr. Gill, Torquay; Miss West, Gravesend; Mr. Stephenson, Hornby; Mr. Molyneux, Bootle; Mr. Sergeant, Leeds; Mr. Welsh, Camelford; Dr. Wood, Woolton; Mr. Churton, Erith; Mr. Redfern, Leicester; Mr. Ellis, Aberdeen; Mr. Walker, Bromwich; Mr. Power, Nuneaton; Dr. Wilson, Glasgow; Mr. Moore, Peterfield; Mr. Belton, Shrewsbury; Mr. Tomlinson, Maldon; Mr. Reatchlous, London; Dr. Sylvester, Pimlico; Dr. Waters, Liverpool; Mr. Graydon, Newtownlimavady; Mr. Sutton, Sittingbourne; Mr. Marsh, Fulham; Mr. Haydon, London; Mr. Simpson, Devizes; Messrs. Beaman and Johnston, Wigan; Mr. Boyd, Shrewsbury; Messrs. Fannin and Co., Dublin; Mr. Burn, Hanley; Mr. Wheeler, Manchester; Mr. Groves, Dorrington; Mr. Naukes, Cuddalore; Mr. Peacock, Great Harwood; Messrs. Smith & Son, Manchester; Dr. Muriel, Whitehaven; Mr. Walker, Corwen; Mr. Heaton, Leeds; Mr. Ryott, Newbury; Mr. Coleman, Leeds; Dr. Ball, Blaenavon; F. G., Worksop; Medicus, Rounds; O. P., Rugby; M.D., Abridge.

*South London Journal, Newcastle Daily Chronicle, East London Observer, Sunday Times, Macclesfield Chronicle, Cork Constitution, Manchester Guardian, Surrey Advertiser, Liverpool Daily Post, Isle of Man Times, Oswestry Advertiser, South London Chronicle, Colonies,* and *Hastings and St. Leonard's Chronicle* have been received.

## METEOROLOGICAL READINGS

(*Taken by Steward's Instruments*).

THE LANCET OFFICE, MAY 21ST, 1874.

| Date. | Barometer reduced to Sea Level, and 32° F. | Direction of Wind. | Wet Bulb. | Dry Bulb | Solar Radia. in Vacuo | Max. Temp. Shade | Min. Temp. | Rainfall. | Remarks at 8 A.M. |
|---|---|---|---|---|---|---|---|---|---|
| May 15 | 29·98 | WNW | 49 | 51 | 87 | 59 | 49 | 0·07 | Fine |
| „ 16 | 30·40 | N.E. | 43 | 47 | 93 | 59 | 39 | 0·00 | Fine |
| „ 18 | 30·30 | N.E. | 43 | 47 | 94 | 61 | 39 | ... | Fine |
| „ 19 | 30·28 | N.E. | 48 | 52 | 83 | 59 | 45 | ... | Fine |
| „ 20 | 30·25 | N.E. | 46 | 52 | 93 | 61 | 43 | ... | Fine |
| „ 21 | 30·07 | E. | 49 | 53 | 98 | 65 | 42 | ... | Fine |


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